

SPECIAL DRAGSTER ISSUE

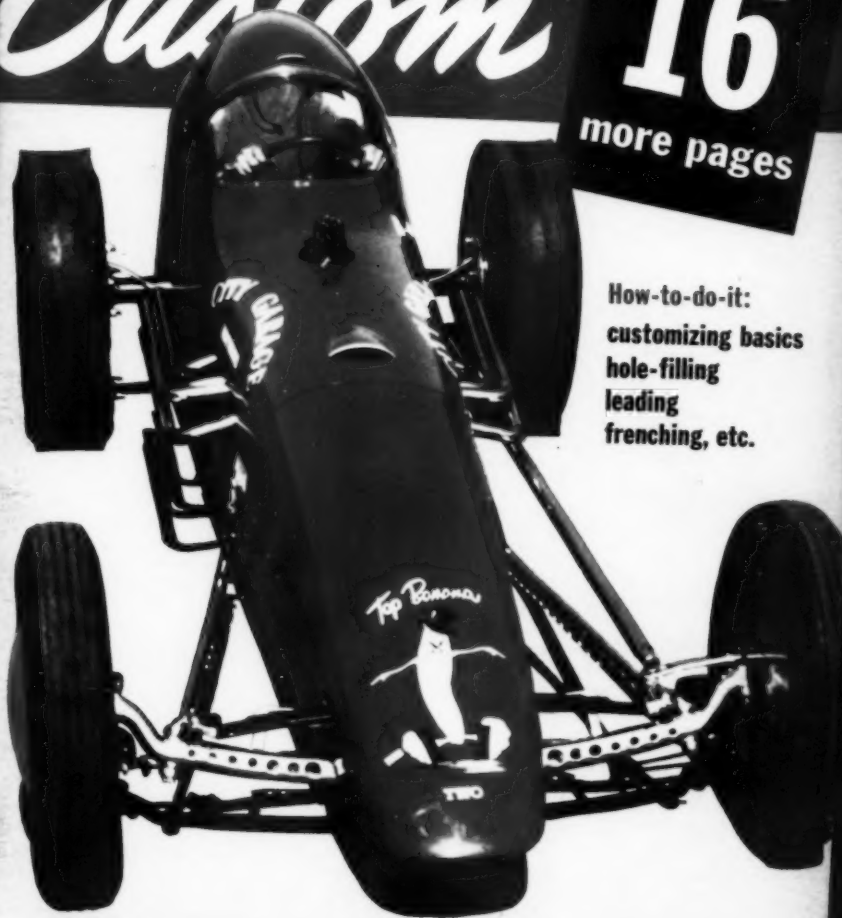
ROD & *Custom*

NOW

16

more pages

**How-to-do-it:
customizing basics
hole-filling
leading
frenching, etc.**



ON SALE NOW!

IDEAS! IDEAS!

1959

You'll find *IDEAS* Galore in the All-New . . .

CUSTOM CARS ANNUAL



How the custom shops influence automotive styling is aptly illustrated by the dramatic modifications on this '55 T-Bird, designed and built by Joe Bailon.

See pages 12 and 13 of the all-new 1959 *CUSTOM CARS ANNUAL*.

128 pages bursting with up-to-the-minute, photo-illustrated *IDEAS* on:

**SCOOPS + QUAD HEADLIGHTS + TAILLIGHTS
HUBCAPS + INTERIORS + ACCESSORIES + FIBERGLAS**

PAINT YOUR CUSTOM

Creating *individuality* via
spray gun with paint
mixtures, unusual
paint schemes,
scalloping!

STARS AND CARS

Learn how these top
names in customizing
have influenced Detroit:
*Babbs, Bailon, Barris,
Emory, Ayala.*

GIANT PICTORIAL ROUNDUP!

Hundreds of photos of
the best in American
customs, many
**NEVER BEFORE
PUBLISHED!**

**ONLY
75c**

AT YOUR NEWSSTAND!

Or send 85c (covers postage, etc.) to:

TREND BOOKS 5959 Hollywood Blvd., Los Angeles 28, Calif.

The

PERVA
SIMPSON
COLIN
J & J
MASON
HALL'S
K & P
PAT 'N
FRED
ZOE S
CUSTOM
BUTLER
CENTU
DEERF
KRULL
DUANE
BLALO
BIG B
PAUL
BEDFO
PAUL
HESSI

The **Bug**

**completely
assembled**

\$10 Shipping Charge (Maximum) Less Depending on Locale



NEW LOW PRICE!

HERE IT IS!
Just what you've been
waiting for...

**NO
MORE OF
THIS**



Now Bug Engineering brings you a car that you can order, uncrate, gas, and drive away. No more pipes, sheets of metal, nuts, bolts, welding or any other time-consuming task to keep you from the enjoyment that you expect when you receive your "Bug".

The car complete, less chrome, paint, upholstery, comes to you completely assembled for the amazingly low price of only \$149.00. Exceptionally low, considering you are getting the finest workmanship and materials possible, plus the new Lifetime Timken Bearing wheels, auto type steering, steering wheel, HELI-ARC WELDED frame, and many more exclusive features when you've got the "Bug".

LESS Paint, Chrome,
Upholstery
\$149⁰⁰
F.O.B. Factory—Calif.
Res. Add 4% Sales Tax

contact your local dealer*

PERVAN MACHINE CO.
SIMPSON'S GARDEN TOWN
COLIN CAMERON
J & J MUFFLER SHOP
MASCHELL OIL CO.
HALL'S CLOTHING STORE
K & P AUTOMOTIVE
PAT 'N DALE AUTO SUPPLY
FRED SCHWIND
ZOE SALES CO.
CUSTOM SALES CO.
BUTLER'S, INC.
CENTURY SPEED SHOP
DEERFIELD HOBBY & TOY SHOP
KRULLS HOBBY SHOP
DUANE'S SPEED SHOP
BLALOCKE CYCLE CO.
BIG BEND CAR WASH
PAUL ELLIS
BEDFORD AUTO PARTS
PAUL J. WESTON
HESSLER APPLIANCE SERVICE

8835 E. Whittier Blvd.
3425 E. Colorado
1837 Fremontia Dr.
Box 861
1409 Wren St.
1 N. Monterey
20 Tenth St.
1459 Freedom Blvd.
13108 Algonquin Rd.
49 Zoe St.
2199 El Camino Real
Box 5
526 E. Lewis
734 Waukegan Rd.
414 E. Washington
Liberty St.
2610 University
1059 Big Bend
6433 St. Augustine
108 Center
2743 California
310 S. Washington

Pico
Pasadena
San Bernardino
29 Palms
Salinas
Gilroy
Richmond
Watsonville
Apple Valley
San Francisco
San Mateo
Agona
Pacatillo
Dearfield
Fort Wayne
Bourbonville
Wheaton
St. Louis
Houston
Bedford
Seattle
Oconto Falls

CALIFORNIA
CALIFORNIA
CALIFORNIA
CALIFORNIA
CALIFORNIA
CALIFORNIA
CALIFORNIA
CALIFORNIA
CALIFORNIA
GUAM
IDAHO
ILLINOIS
INDIANA
KENTUCKY
MARYLAND
MISSOURI
TEXAS
VIRGINIA
WASHINGTON
WISCONSIN

* If there are no dealers in your town, please send self-addressed, stamped envelope for complete information and color brochure to:

Bug engineering

DEALER INQUIRIES INVITED

1000 S. 10th St., P.O. Box 1000, West Covina, Calif.

OCTOBER
1958

In this month's

ROD & Custom

ROBERT E. PETERSEN
SPENCER MURRAY
LYNN WINELAND
A. M. BENEDICT
JIM LONG

publisher
editor
graphics ed.
advertising dir.
advertising mgr.

FEATURES



A rarely customized automobile leads off this month's features. Take a look at...

THE WILD WAGON..... 12

Biggest rod coverage this year is the 19 pages we've devoted to 1/4-mile cars. Here are...

DRAGSTEES—LATEST & GREATEST..... 35

Author Les Ritchey describes the wherefores of axial flow supercharging in his story...

THE BIG BLOW..... 66

JUST FOR YOU

DELIGHTFUL DE SOTO, Midwestern custom.....	14
4 '58's AFTER SURGERY, Up to date restyling.....	16
REVAMPED RAM, Hopping up a fast hop up.....	22
SPEED TUNING, Huntington continues rodding basics.....	30
PLANNED PROGRESSION, The Dream Truck—for '59.....	54
CUSTOMIZING BASICS, A new series on restyling how.....	60
PUTT PUTTS FOR PROGRESSIVES, Futuristic Go Kart.....	70

REGULAR DEPARTMENTS

the starting line.....	6
automart.....	8
our readers write—or wrong.....	9
rods and customs in miniature.....	28
arin coe.....	76
odds 'n ends.....	79
backpressure.....	82

Published monthly by Quine Publications, Inc., 5909 Hollywood Blvd., Los Angeles 28, Calif. Second-class mail privileges authorized at Los Angeles, California under the Act of March 3, 1877. Reprinting in whole or part forbidden except by permission of the publishers. Copyright 1958 by Quine Publications, Inc. Subscription Price: \$3.00 per year throughout the world. Single copy 25 cents. Eastern Advertising: 17 East 48th St., N. Y. C. Detroit Advertising: 524 Book Bldg., Detroit 26, Mich. Midwest Advertising: 380 N. Michigan Ave., Chicago 1, Ill.

what's coming up?



- 1953** The 10 Steps to Customizing were revealed in an exclusive series of enlightening articles.
- 1954** This was the year that the Dune Bugs were announced, a brand new automotive sport.
- 1955** The year began with a now-famed treatise on THE Roadster, yours for a dollar a pound.
- 1956** Young restylists and artists from every state took part in a nation-wide Design Contest.
- 1957** A four-year project, building The Dream Truck, reached completion and the hobby's best-known custom creation took to the car show tour.
- 1958** A brand-new sport — Go Karting — was announced through R & C's pages. And the hobby is still growing!
- 1959** And what about next year? Like everybody else, you'll have to wait and wonder — but rest assured that, as in years past, you'll be keeping ahead of the Rod and Custom hobby by keeping up with Rod & Custom.

do it right by . . .

DOING with Rod & Custom

SUBSCRIBE TODAY

rod and custom magazine 5959 Hollywood Blvd., Los Angeles 28, Calif.

Hurry and send me Rod & Custom Magazine for the next

☐ 12 months @ \$3.00

☐ 24 months @ \$5.00

I'm enclosing

☐ Cash

☐ Check

☐ Money order

Name

Address

City Zone State

IF YOU are one of those who peruse this page before going on to the bigger and better things to be found further along in the book, then we've a real surprise in store for you. But if you return to this space only after the more interesting bits of the magazine have been consumed, then you already know that we've

added a whopping 16 pages to this issue. Yep, we've added a full 25% more space to Rod & Custom specifically for the purpose of being able to squeeze more of the type of material you've asked to see into the already crammed pages of R & C. And the economy-minded among you will be anxious to learn, we'll hasten to add, that the same old two-bit price tag remains.

One of the things we've been intending to reveal for a long time, but which space requirements demanded we preclude, is a treatise on the customizing of those plastic, scale model cars you can buy in a model or hobby shop for less than a buck. We did a bit on this 'long about November of '56, but new cars have been produced since then and along with them have come new methods by which the autos can be altered. This thing appears on pages 28 and 29. Electric rail racing fans will no doubt be glad to learn that their favorite hobby will be spread in the *next* issue—and wait'll you see the scale model drag racin' Buick sedan that shuts off a Ferrari roadster on a miniature drag strip!

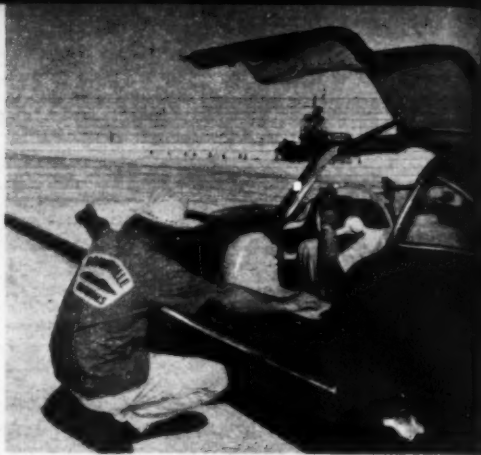
Also somewhere on the pages behind this is an interesting item concerning the Rod & Custom Magazine Dream Truck. The tried and true rolling laboratory was recently shoved 'neath the "Keep Out" sign of Barris' Kustom City in Lynwood, Calif., in order for it to be kept one jump ahead of current styling trends. Barris delivered the famed pickup back to us just the other day, so the look of '59 is yours—a couple of months ahead of time—simply by taking a peek at pages 54 through 59.

As long as we're taking up all this space expounding on the many things this issue contains, we might as well tell you about the outstanding drag photo that photographer Al Caldwell grabbed at a recent meet. Just as Al clicked his shutter, the Romeo Palamides Chrysler-powered dragster lifted its front wheels from the ground and catapulted down the course looking for all the world like a land-locked speedboat. The reason we've selected this photo for display on page 357—to give our special 19-page dragster section a rousing send off.

Next month promises to be an even better issue than this one. See you then? ●

S.M.

ROD & CUSTOM • OCTOBER, 1958



Here
luna
right
on be
beauty
... the
FLAT
platin
of the
sparkl

BU
Here
clasp
then
platin
cu—
curre
juice

MOV
"We
curre
must
be ab
ROD
"The
"The
dram
haver
we'll
enact

Now
curre
Tough
say: "I
one fr
Pharm
Specie
Solatio
Solatio
Rev is
MOV

**"THE MONEY-SAVING WAY TO MAKE YOUR CAR
GLITTER AND GLEAM AGAIN" — CAR LIFE MAGAZINE**

REPLATE AUTO CHROME

**RIGHT ON YOUR CAR —
WITH PERMANENT PLATING**

BRING BACK NEW-CAR BRILLIANCE

Here at last is the car-owner's answer to all chrome problems... a way that you can do actual **ELECTROPLATING** right on your own car. You put a brand-new, shiny plating on bumpers, grille, all auto trim. You bring back new beauty and sparkle to your car... **INCREASE ITS VALUE**... make yourself proud to own and drive it. With **SPEED-PLATE** you put on new metal as you brush! And the plating you apply becomes an **INDESTRUCTIBLE PART** of the metal you plate... bonds itself on—forms a hard, sparkling, metal surface that defies all elements!

BUMPERS—GRILLWORK—ALL CAR TRIM RESTORED TO NEW BRILLIANCE

Here is how easily you **REPLATE** your car... you simply clamp **SPEEDPLATE**'s wires to your car's battery, then dip **SPEEDPLATE** Brush into the miracle plating solution and place anywhere around your car—without removing any parts. Safe, mild current works **FAST**—yet uses less battery juice than the tiniest light on your car.

**TESTED AND APPROVED
BY LEADING
AUTOMOTIVE MAGAZINES**

MOTOR TREND Magazine, New Products Test, July, 1958:
"We deliberately picked a difficult test even which was badly pitted and corroded... Our Plating kit was the Empire Speed Plater. The final result matched the chrome and was entirely satisfactory. Anyone should be able to obtain similar results..."

ROD & CUSTOM Magazine, New Products Test, April, 1958:
"Speedplater not only can be used to restore scratched, worn or blistered chrome on any part of your car, but can be used to plate metal not chrome before... For those wishing to plate their own items right at home without having to depend upon a commercial chrome shop, we'll vouch for the **SPEEDPLATE** doing the job by saying that it works exactly as described, giving a lasting, durable, bright finish."

**Car Dealers & Service Stations Make Big
Profits with Special Heavy Duty Outfit**

Now you can make **YERSELF PROFITS** plating right in your own shop—restoring bumpers, grille, etc. Restored value of your used car! Touch up new car! Restore worn chrome areas to bright, new sparkle! Buick Dealer says: "Wonderful. We had countless results!" Heavy Duty Outfit discharges on current from standard 12 volt battery. Entire Outfit, COMPLETE, only \$34.95. Includes Plating Brush with Permanent Anode, Wires and Clips for Battery Connection, Special Buffing Wheel and Compound, Special Grinding Wheel, Recharge Solution to restore old chemicals, Rust Remover, Special Polish, enough Plating Solution for dozens of cars! You quickly make back cost on your very first job! Additional supplies always available from us at minimum prices. **MONEY BACK GUARANTEE.** Order now. If C.O.D., and \$5 deposit.

CASH REFUND IF NOT COMPLETELY SATISFIED



IT PLATES AS YOU BRUSH
*Brings New, Gleaming Beauty to
Worn, Dull, even Blistered
Chrome Areas of Your Car.*



MAKE BIG MONEY PLATING

Now you can add to your income during spare-time hours... because it cost of 10 cars on the road today **NEED RE-PLATING**. You can charge \$7.00 for touch-up to \$50.00 for replating an entire car.

Plating is fun, too! You'll get a kick out of taking round, pitted, worn metal and bringing it back to shining smoothness. When neighbors see the brilliant plating on your car, they'll want you to do the job for them.

And you can plate other things for *profits*, too... fenders, appliances, motorcycles, cutlery, tools, dusters and dusters' instruments... you can get more customers at low prices any time—also solutions to plate silver, gold and stainless. There's big money in jewelry and silverware work! You get **ALL INSTRUCTIONS** for plating with your Speedplater Outfit!

MAIL COUPON NOW—YOU ASK NOTHING

If you want to put your **own** personal, gleaming plating on your own car, you can do it right away and see what a difference it makes. If you can use **COMPLETELY** satisfied with your own work, return your mail to 30 days in good condition and get **FREE CASH REFUND**. **ACT NOW!** Show us your car! **SPEEDPLATE** Brush, with Permanent Anode for Plating Solution, Wires and Clips for Battery Connection, Special Buffing Wheel and Compound, Special Grinding Wheel, Recharge Solution to restore old chemicals, Rust Remover, Special Polish, enough Plating Solution for dozens of cars! You quickly make back cost on your very first job! Additional supplies always available from us at minimum prices. **MONEY BACK GUARANTEE.** Order now. If C.O.D., and \$5 deposit.

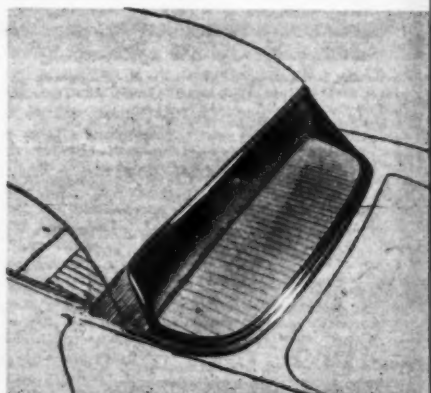
EMPIRE RECHARGING CO. Dept. 9-124
4 North 2nd Ave., 4th Floor, New York, N.Y.
Please rush the electroplating kit I have checked.
☐ Regular **SPEEDPLATE** OUTFIT, \$14.95 (if C.O.D. send \$1 deposit).
☐ Heavy-Duty Service Station Outfit, \$34.95 (if C.O.D. send \$5 deposit).
☐ I enclose full price, send postpaid.
I understand that I must be **COMPLETELY SATISFIED** or I may return the kit within 30 days for immediate **CASH REFUND**.

Name _____
Address _____
City _____ State _____



MOON AUTOMOTIVE, 10820 S. Norwalk Blvd., Santa Fe Springs, Calif., is expanding their line of Kart and 1/4-Midget products. New is their 2-qt. fuel tank, modeled after their full-size counterparts and of the same quality construction, and pint-size "eyeballs." Also offered are 5" and 6" wheel discs, brand-new West Bend #750 2-cycle engines, with or without clutches. Additional items will be made available in the near future.

Tuck and Roll upholstery is now available to all hands with the advent of Com-Pleated Panels. Kicking off the line is the package tray, available for most model cars from '49-'58. Naugahyde-type plastic leather pleats are foam rubber filled, and installation takes but 5 minutes. Mounted on heavy, factory-type panel board, the price is only \$15.00, postage paid. Readymade Auto tops, tonneau covers, pick-up tarps and chain covers are also available. Specify year, make and model as well as color. All mail inquiries answered by **DON'S TRIM SHOP, 14130 San Antonio Drive, Norwalk, California.**



New styling on an old reliable product is only one advantage of this new model fuel injector. Two bits gets you the whole low-down on theory and practical applications for an item that sells for less than a carb. **SCOTT ENGINEERING, Box 944, Santa Monica, Calif.**



Go karters who want the ultimate in horsepower and reliability are going to go for the new 3 & 4 hp all roller and ball bearing engines. Models 510 and 645 by West Bend are described in literature from **GO KART MFG. CO. 152 Huntington Dr. Menlo Park, Calif.**

ROD & CUSTOM

OUR READERS WRITE—or wrong

GO KARTS, QUARTER MIDGETS, ETC.

Go Karts, Quarter Midgets—Go Karts, Quarter Midgets. When is it all going to end?

Been following your formerly good magazine for three years but lately the issues have been leaving me cold. Do you realize that nearly 3/4rds of the July issue was devoted to those freakish little cars? Guess the only things left for real auto enthusiasts to read are your advertisements—and even those are beginning to sprout karts and their parts. However, I'll remain faithful to R & C albeit with fingers crossed—but when you change your title from R & C to QK & QM, I'll quit!

Allen Massey aboard USS Princeton

● Don't know where you get all that Quarter Midget action, Al. We've never run the things and never intend to. They're for kids. But the inimitable 1/11 karts are something different. Aside from the experience in mechanics one can gain from dreaming one up and putting it together, they teach driver ability, give their pilots first-hand experience in the art of handling a high-spirited machine, and are nothing short of the world's finest substitute for the would-be competition enthusiast who doesn't have the bread to put out for something in the line of a larger car. More and more rodders, sports car handlers, and auto enthusiasts in general are turning to the karts which are, at present, keeping the various manufacturers at flat-out production. As for the ads, nothing we've ever featured or advertised has brought in such overwhelming response. Manufacturers, dealers, and shops which produce parts for the little speedsters have asked us to play down the karts for a while, at least until production returns from its present hysterical condition. (We did manage to sneak a little something into this issue, though; the Kart of the Future. See page 72). Yep, Al, afraid your opinions will echo hollowly.

LAUGHIN' UP A STORM

I, for one, hope you keep Boy Storyteller Carl Kohler betwixt the pages

continued on p. 77

WELD IT YOURSELF! IN A JIFFY ●

Weld, cut, braze, solder IRON, STEEL, BRONZE, BRASS, ALUMINUM & OTHER METALS . . .

Auto, truck, shop and farm equipment break-down always cause annoying and costly delays. Don't let them bother you. Get a Dynamic Arc Welder. With the Dynamic you can also make your own wrought iron household and lawn furniture and many knick-knacks. You can do expert work on your very first job. Operates from any properly wired 110 volt AC line. The handiest tool in your workshop. A Dynamic Welder will save its low cost of only \$38.50 f.o.b. in both time and money. Literature on larger equipment on request.

DYNAMIC INDUSTRIAL type transformer Arc Welder 75 amp. output for industrial or Workshop use.

DYNAMIC WELDER CO.
Dept. D-59-K, 1808 E. Federal
Chicago 16, Ill.

EASY PAY PLAN

Low down payment. Pay as you weld. Sold on money-back guarantee. Send for details. Complete outfit only

\$38.50
f.o.b. factory



Free Details and "How to Weld"

MAKE MORE MONEY IN

AUTO MECHANICS AND DIESEL

You are needed in auto garages, airplane factories, farm shops, experimental and government labs, wherever cars, engines, and trucks are repaired and serviced. National Schools Shop Method Training prepares you at home. Training prepares you for these fascinating opportunities. You get everything you need, including lessons, diagrams, manuals, consultation privileges, graduate employment service. Low tuition; pay as you learn.



YOU GET AND KEEP ALL THIS EQUIPMENT



NATIONAL SCHOOLS

75 ANGLETON ST., LOS ANGELES 2

NATIONAL SCHOOLS, DEPT. D1V-108

4000 S. FIGUEROA ST., LOS ANGELES 37, CALIF.

Rush free Auto Diesel "Opportunity" Book and sample lesson. No salesman will call.

NAME _____ AGE _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____

☐ Check if interested ONLY in Resident Training at Los Angeles.
VETERANS: Give date of Discharge

**BOTH
FREE**

FREE! Just Out! World's Largest Automotive Catalog! Now 260 Pages!

JC WHITTE (a co)

KALIGRAFI

Handwritten style lettering for car stickers. Includes examples like "HOT ROD", "MOTOR", "RACING", "CRAZY CAR STICKERS".

"Day-Glo" Fluorescent CRAZY CAR STICKERS

Includes examples of various car stickers with different designs and text.

Spun Aluminum SNAP-ON RACING WHEELS

Includes an image of a racing wheel and text describing its features and availability.

TU-TONE MUFFLERS

The Only Muffler With INNOVATIVE TUNING SOUND CONTROL! Includes an image of a muffler and text describing its features.

STYLE LEADER CONTINENTAL KITS

★ ITS NEW... ★ ITS BETTER... ★ ITS TERRIFIC! Includes an image of a car and text describing the kits.

FOR ALL CARS! INCLUDING THE NEW Primary Dragsters—Customize in PINKISH WALL, PINKISH SCATS

Includes an image of a car and text describing the customization options.

PIN STRIPPING

The Best of a Lower Cost! Includes an image of a car and text describing the service.

High-Speed CAMSHAFT

Includes an image of a camshaft and text describing its features.

Yellow Tone Mufflers

Includes an image of a muffler and text describing its features.

Blue Dot Tail Lamp LENSES

Includes an image of a tail lamp lens and text describing its features.

ELECTRIC PUSH BUTTON DOOR KIT

Includes an image of a door kit and text describing its features.

EXACT WALL, MAKE A MODEL OF CAR VIBES

Includes an image of a car and text describing the model.

TRUNK TOOL HOLDER

Includes an image of a tool holder and text describing its features.

RADIATOR HOSE

Includes an image of a radiator hose and text describing its features.

HOLLYWOOD Noise Makers

Includes an image of a noise maker and text describing its features.

TAIL LIGHT VIBRATOR

Includes an image of a vibrator and text describing its features.

PLASTIC STEEL

Includes an image of a plastic steel part and text describing its features.

FOR ALL CARS! INCLUDING THE NEW Primary Dragsters—Customize in PINKISH WALL, PINKISH SCATS

Includes an image of a car and text describing the customization options.

ARMCHAIR CLAMPING TAIL

Includes an image of a clamp and text describing its features.

TRUNK TOOL HOLDER

Includes an image of a tool holder and text describing its features.

HOLLYWOOD Noise Makers

Includes an image of a noise maker and text describing its features.

TAIL LIGHT VIBRATOR

Includes an image of a vibrator and text describing its features.

PLASTIC STEEL

Includes an image of a plastic steel part and text describing its features.

FOR ALL CARS! INCLUDING THE NEW Primary Dragsters—Customize in PINKISH WALL, PINKISH SCATS

Includes an image of a car and text describing the customization options.

SIX BRAND NEW CAR PLAQUES

Includes an image of a plaque and text describing its features.

COLOR DYE FOR LAMP BULBS

Includes an image of a lamp bulb and text describing its features.

REPAIR AND BOTTLE WITH FLAGSTICK CUSTOMIZING

Includes an image of a bottle and text describing its features.

CUSTOM GRILLE BAR

Includes an image of a grille bar and text describing its features.

SUP BURNING OIL

Includes an image of a bottle and text describing its features.

\$5.95
 \$2.95
 \$1.95
 \$3.95
 \$4.95
 \$49.95
 \$3.00

DOODGE LANCER TYPE FULL WHEEL COVERS



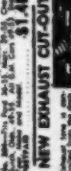
For \$7.50 a pair, these covers will protect your wheels from dirt and damage. They are made of heavy duty steel and are easy to install.

Cattle Collar Horn



This is a new type of collar horn that will keep your cattle safe from injury. It is made of heavy duty steel and is easy to install.

CONVERTIBLE RAINCOAT



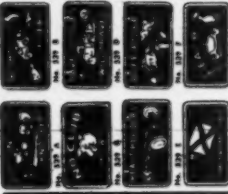
This is a new type of raincoat that will keep you dry in any weather. It is made of heavy duty material and is easy to wear.

NEW EXHAUST CUT-OUT



This is a new type of exhaust cut-out that will keep your car running smoothly. It is made of heavy duty material and is easy to install.

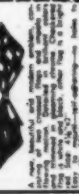
Six Brand New Car Plaques



PLAQUE MOUNTING KIT



IMPALA FLAG EMBLEM



For 1952-54 FORDS AIR MOUNTED 6 IN. RAIL LIGHT KIT



JC WHITNEY & CO. 1917 (U-210) Archer Ave., Chicago 16, Ill.

Celer Dye for Lamp Bulbs



CONVERSION KIT for 1949-50 FORD GRILLE



AUTO FABRIC SPRAY



USE THIS HANDY ORDER FORM - MAIL TODAY!

I desire to receive your literature in full for 25¢ sample.
 I desire to receive your literature in full for 25¢ sample.
 I desire to receive your literature in full for 25¢ sample.

REPAIR KIT BOTTLE with VITRIFIED CUSTOMIZING KIT



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT

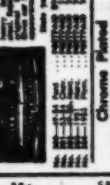


NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

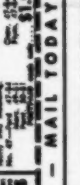
CUSTOM GRILLE BAR



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

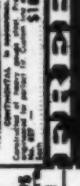
SLIP BURNING OIL



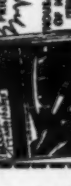
CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT

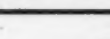


NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS



FULL MOOSE ORNAMENT



NEW CHROME AND LUMBER EXTRA TIRE AND BRAKE SPRING



USE THIS HANDY ORDER FORM - MAIL TODAY!

SLIP BURNING OIL



CHROME PLATED GENERATOR COVERS

</

Rarely used for customizing bait, the station wagon can be made into an attractive vehicle with a minimum amount of work. Enthusiasts in favor of lighter, less bulky cars will be surprised to learn that this stock-engined Ford Ranch Wagon turned up a real healthy 84 mph at the drag.



Owner Scotty Berguson dropped the Ford fore and aft by chopping 2½ coils from the front springs, and by adding deep 4-inch blocks in back. Using Merc skirts, with chrome removed, added further to that low, low look. The stock Ford grille was replaced with a revamped Plymouth grille, a '56 unit. Hood is de-chromed. Owner Berguson did all the work without help.



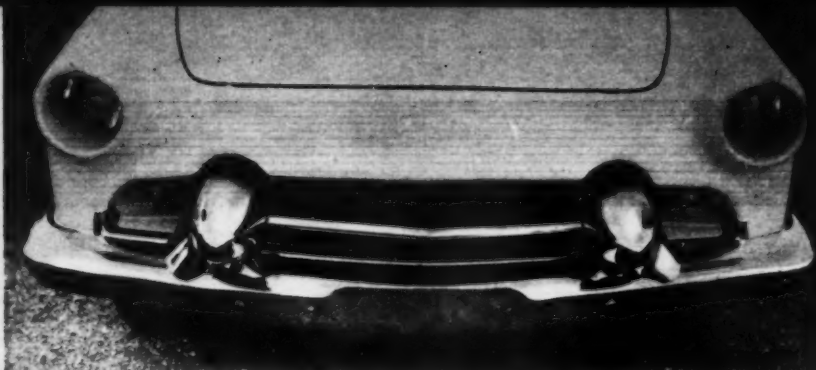
The Wagon's stock color of light tan has been enhanced by careful scalloping using a "golden chocolate." Hubcaps are from a '57 Dodge Lancer. Single lenses from a '38 Ford taillight assembly have been fitted into '57 openings using a backing of aluminum trimmed to fit.

ROD & CUSTOM



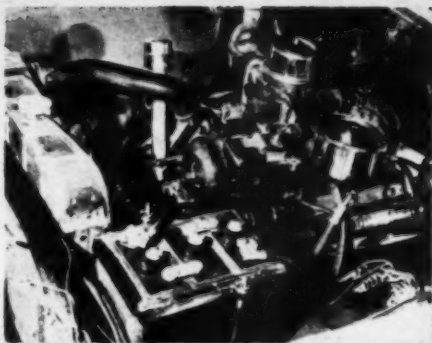
Wildcat





Charles Buisse, Jr., member of the Artist's Rod & Custom Club, Inc., the NHRA, and the Michigan Shores Timing Ass'n, has put together as fine a custom DeSoto as it has been our pleasure to review. The '35 hardtop has been dutifully nosed, decked, de-handled, and otherwise stripped of useless ornamentation save for the thin strips surrounding the contrasting color panel flaunting the car's shapely sides. Deeply tunnelled lights serve to lengthen car's appearance from a side view. Biggest frontal alteration was filling of familiar DeSoto hood scoop. 'Round back, de-ornamenting was emphasized by addition of Kaiser bumper guards instead of the overly big stock components. Beneath the hood reposes a Firedome V8 with a mild overbore, but with such goodies as a Herbert cam, Elgin pistons, three Stromberg 97's perched atop a special manifold (installed after these photos were taken). Lowering of the car is via dropped front spindles, for a 2-inch downward setting, and lowering blocks aft, plus weight of the continental kit, has set the back proportionally low. The handleless doors are solenoid operated via a concealed button which can be inactivated by a key-locking switch hidden in the grille. All in all, a mighty DElightfully customized DeSoto.





DELIGHTFUL Soto

artist's touch has transformed a formerly
so-so model into an eye-catcher



Photos by Picard

4 '58's after surgery

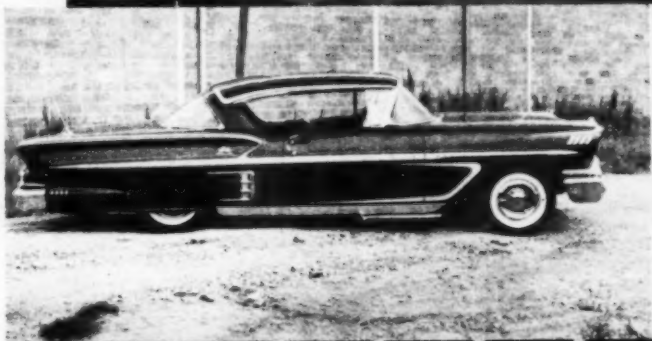
a 'bird, an olds, a ford and a chev updated

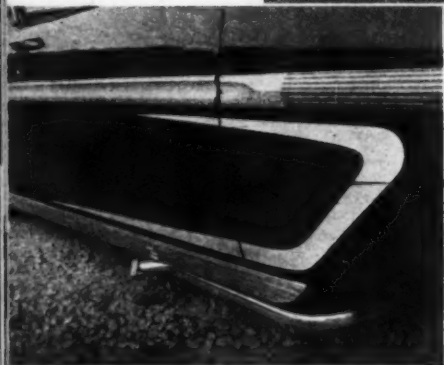
It wasn't long after last year's introduction of the 1958 automobiles that restylists, customizers and just plain enthusiasts began adding their deft touches. Usually limited to little more than nosing and decking, until the cars have had a few thousand miles at least behind them, this year's crop turned up with new and wild ideas in paint treatments. The scallop craze has reached new heights, as these 4 cars will attest, and at last enthusiasts are trimming in multi-colored hues in a semblance of art instead of painting just for the sake of it. Lines are emphasized in good taste, otherwise blank patches of metal are keynoted by a dash of color, and undesirable line-breaking features, such as door-handles, etc., are minimized through a careful selection of scallop design.

FORD	Ohio
'BIRD	California
CHEVY	Ohio
OLDS	California



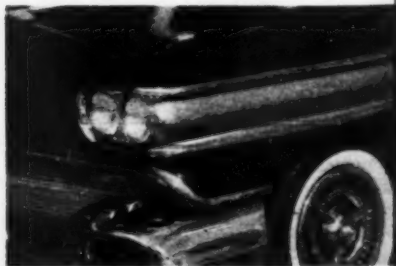
Photos by Barris





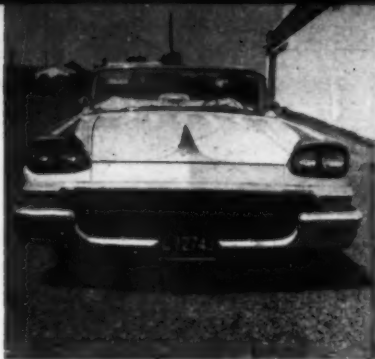
Lloyd Nyman, from the small community of Turlock, had Winfield's Custom Shop go all through his '58 hardtop, cleaning up little details, like removing bits of trim and ornamentation. A moderate lowering job brought the big Olds a few inches closer to the deck. Chrome metal bullets were mounted over the taillight lenses leaving a sufficient circle of red to warn following motorists. Not wishing to be too radical, owner left doorhandles on.

Russ Johnson's Impala hardtop is probably Columbus, Ohio's, most distinctive Chevrolet. Though metal rehashing was kept to an inexpensive minimum, other changes and the use of line-enhancing scalloping make the 2-door an eye-catcher wherever it goes. Metalwork limited to nose and deck ornament removal.



Toledo,
ible be
Pharac
took 42
get thi
Painted
Ford he
mounte
the For
various
equipp
door h
and wa
The car

Toledo, Ohio's, only customized Ford convertible belongs to Jerry Halak, a member of the Pharaohs Custom Car and Engine Club. It took 42 days and an expenditure of \$500 to get this soft-top in the shape Jerry wanted. Painted in ivory and trimmed in gold, the Ford has a '57 rear bumper above which are mounted a row of custom taillights set into the Ford's novel openings. Now free of the various nameplates with which the car came equipped, the convertible has also lost its door handles, been fitted with outside pipes and was lowered many inches closer to road. The car has copped many 1st place awards.



Larry Watson, well-known young stripper currently practicing his trade at Barris' Kustom City in Lynwood, California, has just put the finishing touches on his 'Bird. Barris did all the metalwork, limited to removal of all unnecessary ornamentation and the doorhandles, while owner Watson repainted the squat car stunning Burgundy trimmed in Silver Pearl.



ably
olet.
in-
use
door
work
oval.



4^{58's}



Lower
side
are p
center
placed
remov



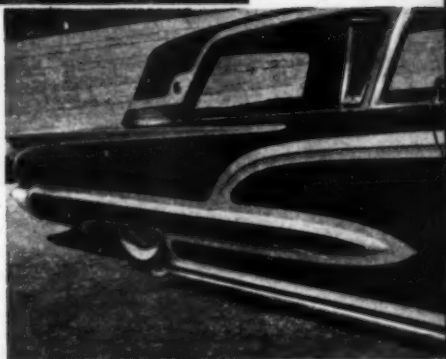
Rear fender skirts and a back end a trill lower than the front definitely locate the car's home geographically, but the already fine appearance of the Impala is improved by changes made. Formerly white backup lens, flanked by red lenses, has been replaced with yet another red light, a popular switch of these Chevys. Scallops are turquoise on black

This Olds differs from the other '58's shown herewith in that it hasn't been brilliantly scalloped or otherwise embellished. However, with chrome removed from within the outlined flair leading aft from the car's headlights, the area was painted gold to contrast vividly with the pretty Burgundy lacquer job which Winfield sprayed over the car then rubbed to brilliance.





Lowness made more apparent by adding outside exhaust pipes. Flat red taillight lenses are partially covered by chromed bullets in center. Similar bullets, cut to fit, have been placed on front bumper to hide holes left by removal of the vertical bumper/grille guards.



a tri
cate th
alred
roved h
up len
aced w
witch o
on black



If you meet a docile-looking Dodge at a stoplight,
It might be Buckler's...

REVAMPED RAM

By PETER SUKALAC

EARLY IN 1957 Dodge brought out a factory rod to challenge all comers on the tracks around the country. The rigs were light, two-door sedans equipped with special shocks, oversized binders and extra-stiff springs. Powered by a Chrysler mill these cars seemed destined for the winner's circle. Unfortunately the cars appeared at a time when Nascar was tightening up its regulations, and with but limited production the D-501 Dodges were barred from the tracks. To make matters worse a wave of anti-racing feeling was running high in the industry. As a result the 501's were dropped out of production after but a handful had been made. The existing cars were sold to dealers and soon dropped out of sight. But, not for long! The first thing Northwest sports car fans knew one of the factory bombs turned up on a road course in the hands of Don Rushlight, an enthusiastic sportsman from Portland, Oregon. With explosive acceleration and terrific braking ability the machine proved to be ready to wax anything in its class. The rub was that Don could find nothing to race, so the car was sold to drag fan George Buckler, Jr.

The ¼ mile put the car in its own element, but with speed shifts and rubber-ripping starts being handed out day after day the inevitable weak spots began to show. The gear box was too weak and too slow. If a good shift was made the rear end just couldn't take the torque. Add to this the difficulty of snapping valve stems at high rpm and it spells expensive trouble. A '37 La Salle box was installed in place of the column shift cog mixer. It worked fine, but only added to the rear end woes.

ROD & CUSTOM

Buc
cup s
Dan's
mill,
would
duty l
extra
bars t
The d
Dann
alread
(Stre
The
disma
OCTO



ight, watch out!



Buckler showed the car to Dan Kilcup a top Portland, Oregon builder. Dan's advice was to go through the mill, modify the La Salle box so it would do a better job, install a heavy-duty locked rear end and then hang on extra strong set of torque reaction bars to keep the wheels on the ground. The deal sounded right to Buckler and Danny took on the job of turning an already hot car into a D-501 SSM (Street'n Strip Missile).

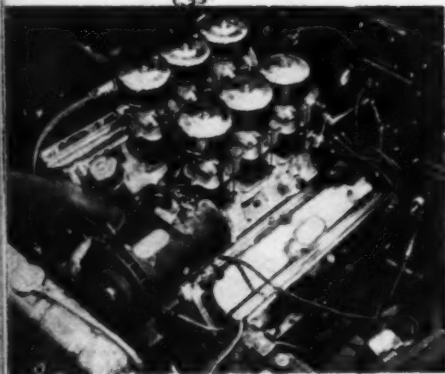
The Chrysler mill was pulled and dismantled. The block was bored to 4"

for a capacity of 365 cubes. The 'C Type' cam was left as is with its .444 lift which was plenty adequate. The heads were hogged out and polished to a mirror finish. All valves were lightened as much as safety permitted.

Since one of the main weaknesses of the valve train was acute float in the 5000 rpm range the entire train was modified. In addition to the lightening job the stock valve keepers were given the 'deep six' and the stems machined to accept Buick straight 8 keepers and spring retainers. In addition new push

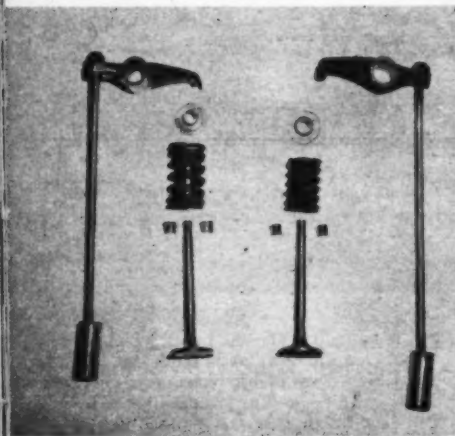


continued

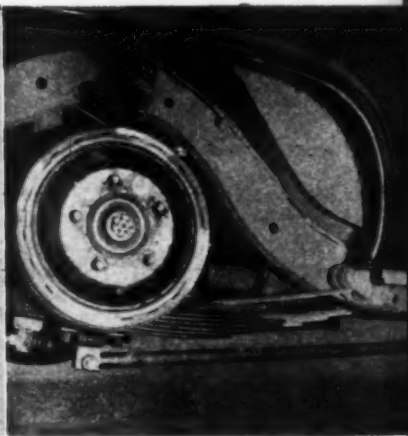


Six 97's sit atop Weiland manifold, feed fuel to the healthy Chrysler. A minimum of chrome goodies lend business-like atmosphere to the haulin' ram. Above: The use of a La Salle transmission meant drilling...

...ne
bolt p
of the
up at
From



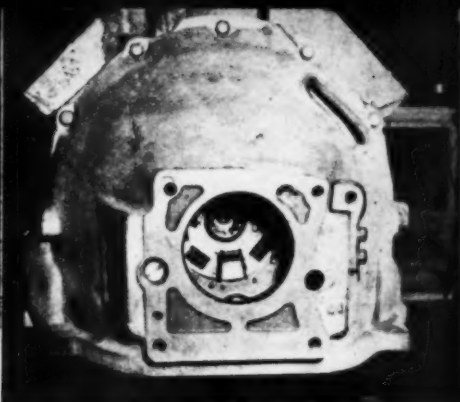
...was next to undergo a little revamping. Necessary for high-revving is valve-train lightening. Setup at left weighs 3.3 ozs. less than stock setup at right. The push rods are $\frac{5}{16}$ " Shelby seamless tubing. Note rockers.



Handbuilt torque reactors are stiffer than commercial items. These bars, leading aft to the rear axle, keep rubber on the ground where it belongs by preventing axle wind-up under hard acceleration—and in stopping, too.

rods
seam
were
add
set
then
The
OCT

d fuel
chrome
re to
of a
ng...



...new holes in front of case to match the bolt pattern of the Chrysler bellhousing. One of the stock holes (above) had to be welded up and the case's face milled flat again. From here on out it was just a simple...

...matter of bolting the unit onto the bellhousing. The La Salle transmission proved able to stand the strain of the big bent-eight far better than the original unit had been able to. With transmission ails cured, the engine...



than
aft to
round
nd-up
, too.

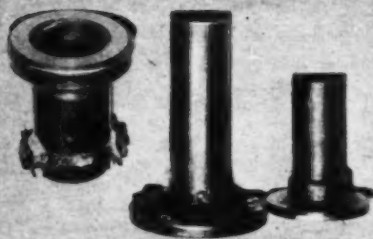
rods were made of thin wall Shelby seamless tubing. The big rocker arms were ground down and shot peened for added lightness and durability. A full set of Edsel-Ford valve springs were then substituted for the stock items. These coils showed plenty of strength

on the test stand with a reading of 110 pounds with the valve closed and 246 pounds with the valve open. Each new valve train weighed 3.3 ounces less than it had stock. The engine was reassembled with .008 clearance around the Jahns full skirt pistons.

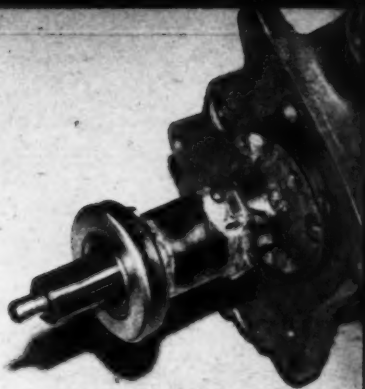
STOM



continued



An entirely new front transmission bearing retainer and a throwout collar had to be fabricated. The stock La Salle retainer is shown at the left, with special components in center and at right. The pilot shaft...



...had to be lengthened 2 1/4 inches, by welding stock to the original shaft, then re-machining and cutting splines, so the unit would reach the pilot bearing in the Chrysler flywheel. Now the unit is ready to be installed.

La Salle
running
a brake
build
oil l



The final compression ratio worked out to 11:1. A Weiand Drag Star manifold running six Stromberg 97's allowed for plenty of fuel and easy breathing. Before mounting a new Spalding 'Flame Thrower' Dan modified the advance for full manual

continued on p. 80



Following present practice, the longest lever possible was used. A hole was cut in the floor to allow protrusion of gear selector housing. Note electric tachometer mounted on steering column where it is easily readable by driver.

The
since
in a
inter
far

es, by
hen re-
e unit
Chrysler
stalled.



La Salle boxes were never made for continuous running at high speed. The pencil indicates a breather installed to prevent pressure from building up in the box and let foaming gear oil leak through the gear selector opening.

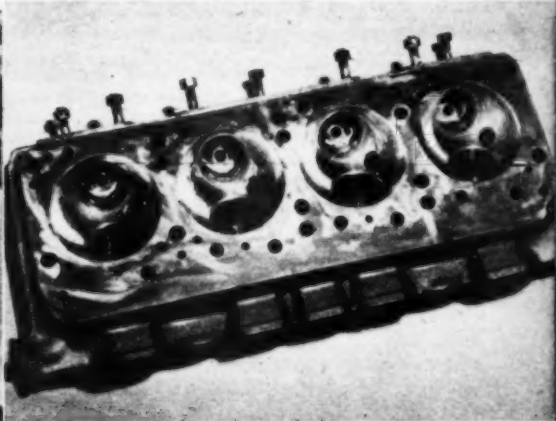


Bellhousing was smaller than face of transmission so a bracket had to bolted to it so upper right case ear could be bolted down. Note how far forward gear selector is, placing stick up under the dashboard.



t lever
e floor
housing.
steering
driver.

The heads were really given the works—since they're perhaps the most important items in a healthy, power-producing engine. The intake and exhaust ports were enlarged as far as the gaskets would allow, then...



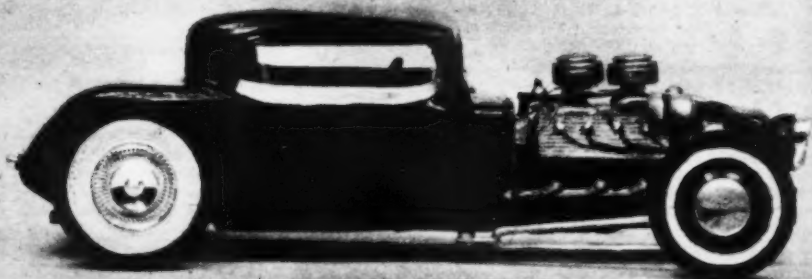
...all passages were polished to a mirror-like finish. Similarly, the combustion chamber surfaces were given the polish treatment. When openings matched gaskets, the heads were placed on engine and torqued down.

rods and customs in miniature

a pair of deuces

THE INTEREST in plastic model car customizing had scarcely subsided after our national contest, held in 1957, when Revell introduced their Jalopy Race Car. The miniature, looking for all the world like the countless track-bound '32 Ford coupes presently running at tracks around the country, was designed with the appearance of a much-run jalopy in mind. No "glass" was used in the window openings, the "fabric" top covering was left off, the hood was abbreviated to little more than an engine covering. There were no fenders or running boards, and the suggested paint job featured flames emanating from the engine compartment. In short, it was a true jalopy. But no sooner had the model been introduced, for just 69¢ at hobby stores, than customizing fans realized that here at last was a reproduction that could be converted to any one of a number of car types. Other than the Revell '32 roadster, long since discontinued, this was the only plastic offering that really appealed to the hot rodder.

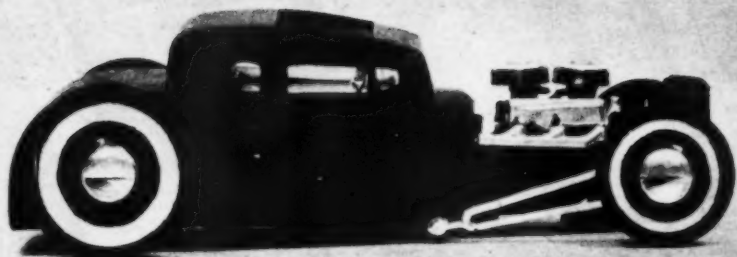
Illustrated herewith are two examples of how the Jalopy can be reworked into something a little different than the inexpensive kit originally offered. First is the street coupe, built by Tony Broer of Maumee, Ohio. Tony spent four weeks on his model. The rod has been chopped and channeled, the top opening panelled over and the flathead V8 engine prettied up. Headlights (there are none on the kit car) have been added for "street driving." The black coupe sports whitewall tires with "chrome" trim added to radius rods, front axle, and so on.



a
air
of
es

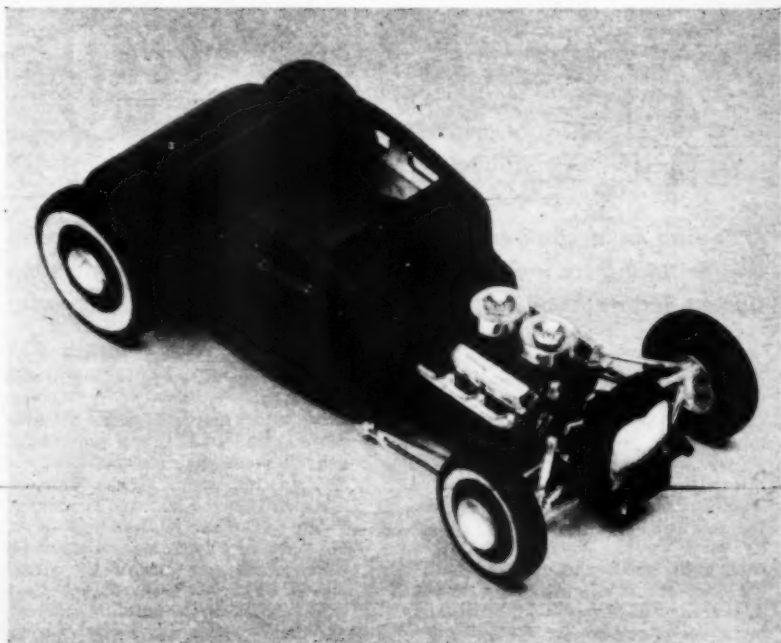
after
Race
and '32
with
window
little
and the
nt. In
r just
repro-
than
ering

d into
is the
on his
r and
have
with



The second example, built by Don Reguero from Fairfield, Calif., is a competition model intended for Bonneville or drag strip work.

Deeply dropped, by top chopping and body channeling, the little 5-window Deuce is powered by a Lincoln V8 pirated from Revell's Mark II model. Dark grey primer adds to its competitive look and the interior is red and white. ●





By ROGER HUNTINGTON, ASAE

Speed Tuning

—THE ECONOMICAL WAY OUT

Second in a continuing series on the forgotten basics behind engine tuning for maximum performance; inexpensive and simple tips on getting from your engine what it was designed to produce.

LAST MONTH we discussed the basics of the carburetor problem with a fast street engine. We learned how to get the maximum amount of fuel-air mixture into the cylinder on the intake stroke without going into extensive internal modifications on the engine. The next problem is ignition — getting the mixture burned in the most efficient way on the power stroke. After that we'll tackle the *exhaust*, or the general subject of getting the burned mixture out of the cylinder with minimum back-pressure, so we can get a fresh charge in there and working.

These are all basic factors in the simple "bolt-on" speed tuning problem.

The basic battery-coil type of ignition system has been perfected over a period of 40 years into a very efficient, reliable piece of automotive equipment. In fact, important strides have been made in just the last five or six years. I can remember in the early days of hot rodding when a stock Detroit ignition system was one of the weakest points when you went to hop up the engine. You could actually not count on winding much above 4000 rpm with high compression and improved breath-

ing
with
the
the
prov
erall
stric
impe
mod
life-

But
gene
coil"
mag
closi
batter
wind
and
mag
the
ing
onda
This
gap
The
onda

Th
can
in t
high
circu
num
circu
prim
volta
the
rang
for
rpm
up a
(A
insta
curv

As
have
in th
batter
year
prov
coil
mass
too f
buy
Mall
that
volta
batter
only

OCTO

ing without doing something radical with the factory ignition setup. Today the switch to 12 volts — plus other improvements on coils, points, etc. — generally permit well over 5000 rpm with strictly stock ignition. You can still improve stock ignition with certain modifications, but it's definitely not the life-and-death matter it used to be.

But to start at the beginning: The general principle behind the "battery-coil" ignition system is to build up a magnetic field in an induction coil by closing a set of points and sending battery current through the primary windings. When the points are opened and the primary circuit broken the magnetic field collapses rapidly across the secondary windings, thereby inducing a high-voltage current in the secondary circuit feeding the spark plugs. This causes a spark to jump the plug gap and fire the charge in the cylinder. The distributor rotor routes the secondary current to the proper plug.

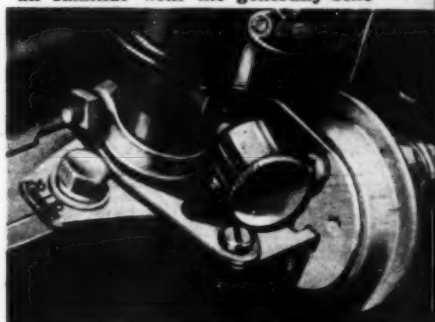
There are several obvious tricks we can use to get a hotter, fatter spark in the cylinders: (1) We could use higher battery voltage to the primary circuit; (2) we could increase the number of windings in the secondary circuit of the coil, in relation to the primary windings, so the basic battery voltage would be multiplied more at the spark plug; and (3) we can arrange to keep the contact points *closed* for a longer period (at a given engine rpm), so the battery voltage can build up a fatter magnetic field in the coil. (A magnetic field does not build up instantly, but according to a smooth curve of field strength against time.)

As you know, all the above tricks have been exploited with great success in the hot rod industry. The jump in battery voltage from 6 to 12 in recent years has been a big factor in improved ignition performance. Increased coil windings means more cost, so mass-produced factory coils don't go too far with this. But you can readily buy high-quality specialty coils like Mallory, D.S.M., Bosch, Lucas, etc. that will kick out more than 40,000 volts in the secondary from 12 volts battery input to the primary. (This is only at low and medium speeds.) We

have two tricks open to us for increasing the breaker point "dwell" period (degrees of distributor rotor rotation that points are closed). We can use two sets of points wired in parallel, but arranged in such a position on the breaker plate that their closed periods *overlap*. The early Ford V-8's and some Chrysler products use this deal. The dwell period can be increased by $\frac{1}{3}$ rd this way. Or we can use two separate ignition circuits with two coils, two sets of points, and only half the conventional number of lobes on the breaker cam. Obviously this "dual" ignition setup will virtually *double* the point dwell period — and give a terrific spark at high rpm (when the coil saturation time is low).

The big problem now, of course, is to decide what is really *needed* in the way of special ignition equipment. Dual point breaker plates are available for all cars from the specialty houses, and cost only around \$6 or \$8. The quality high-voltage coils run up around \$15. Complete quality distributors—(featuring such things as improved moisture and electrical insulation, ball bearing breaker plates, better wiring, etc.)—will range in price from about \$35 for single-coil systems to \$100 or so for the best dual-coil jobs like the Spalding Flamethrower, Jackson Roto-Faze, etc. These setups are available for most late cars.

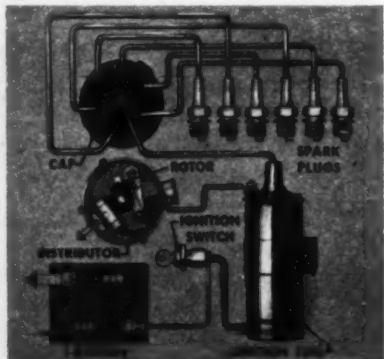
The choice is further complicated by the problems of *spark advance*. We're all familiar with the generally-bene-



Six cylinder Chevys used to have an "octane selector" dial so static spark advance could be set without using a timing light.

ficial effect of another 4 to 8° of static spark advance beyond the recommended factory setting. This is the most elementary form of "customized" spark advance; Detroit must limit static advance because many drivers never use full throttle and the resulting heavy carbon build-up is critical on detonation. If you push your engine a little harder you can use more advance — get more torque at all speeds.

But don't forget the full-throttle centrifugal advance curve. Detroit has to compromise here, too, and we can often get a substantial torque boost over the full speed range by modifying the shape of this curve (advance vs. rpm). No hard and fast rules for modifying are possible; every engine is a different problem. Generally a faster rate of advance at the low end will help, but the required maximum advance at high speed may be more or less than stock. Dynamometer testing is the only reliable way to tell. Unfortunately, stock distributors don't provide means for *adjusting* the advance curve. This is a real big job; I gave some hints on procedure in my article on tuning in the June '58 issue of R & C. But since this work is probably beyond the average rodder we come right back to face the complete specialty high-performance distributor again. One of the best features of these gimmicks is that they all carry a spark advance curve that is *custom*



One of the custom built distributors. A dual-coil unit for the late ohv Cadillac.

tailored to your engine. When you buy one you state the type of car you have, special equipment, use of the car, etc. — and the company will install the right advance curve, as determined by dynamometer experiments. (Some use only centrifugal advance, while others have both centrifugal and vacuum.)

So what do we need? Actually it's pretty much a matter of dollars-and-cents again. If funds are real short a dual breaker plate and hot coil will have to suffice. But for something in the neighborhood of \$40 you can get a Mallory distributor with dual points and a custom advance curve. This will do more for you than a hot coil or the Mallory "Magspark" transformer. If you're building up an all-out competition engine that will have very high compression and will operate at extreme rpm, I'll have to advise one of the more elaborate dual-coil distributor setups. I don't see a magneto being necessary under any normal conditions. And one other gimmick: Chevrolet V-8 owners can improve ignition performance for minimum cost by installing a complete Corvette distributor and coil; this has dual breakers and special centrifugal advance curve.

From here ignition tuning is quite straightforward. A good set of quality spark leads (like Packard) is important. You can check for correct spark plug heat range by inspecting the plug tips after a burst of full-throttle ac-

Speed Tuning

continued

More custom built distributors. Though the cases and caps are standard items, similarity ceases with in-nards. These are Crawford items built for flathead Fords from '32 to '53.

celeration, with the engine shut off immediately after accelerating. The porcelain and electrodes should be a light tan or straw color. A white, burned appearance indicates too hot plugs, while soot or an oily appearance shows you can use a hotter plug. Remember that spark plug heat range is a vital factor in the success of any engine, especially when driven hard in competition.

Now let's talk a little about exhaust systems. These come under the heading of "bolt-on" hop-up equipment, and I have found a great deal of misinformation among the enthusiasts about the effect of various exhaust modifications. In the first place, when the piston comes up on the exhaust stroke and pushes the exhaust gases out of the cylinder, there will likely be a certain amount of "back-pressure" on the piston head due to flow restrictions in the exhaust system. This back-pressure can be as high as 8 or 10 lbs./sq.in. with an obsolete single exhaust system — or you can actually get a slight suction by using a separate pipe for each cylinder and "tuning" the pipe length to take advantage of acoustic pulsations. This exhaust tuning subject is beyond the scope of this article, but at least we should be able to get rid of the back-pressure (which reduces power by opposing piston motion and by diluting the incoming charge with residual gases in the cylinder).

I would like to emphasize at this point that back-pressure is a *more serious problem today than it was five years ago!* You may remember certain back-pressure test results that were widely published in the early '50s, showing 4 to 6 lbs. back-pressure with stock single exhaust systems, and practically zero pressure with dual lines. Today our big-inch free-breathing engine have obsoleted these results; the simple dual system can no longer be considered the final answer. After all, the flow pressure loss (equivalent to back-pressure) in any duct system increases roughly as the *square* of the gas flow in pounds per minute... and, of course, exhaust gas flow in an engine is a direct function of the *horsepower* produced. Thus a modern 300-hp engine is going to need a lot more flow area than a 120-hp engine of the early '50s.

Detroit exhaust systems have barely kept pace with engine development. I was pretty shook by a factory test report that came across my desk the other day on a certain medium-priced model of the Big Three. With full throttle at 3600 rpm it showed an exhaust manifold back-pressure of over 8 lbs./sq.in. with the standard single exhaust system — and about 2½ lbs. with the optional dual system! The corresponding 0-60 mph times were 11.1 and 10.5 secs. respectively. Obviously with zero back-pressure the 0-60 time of this car would be down in the 9's.

Speed Tuning

continued

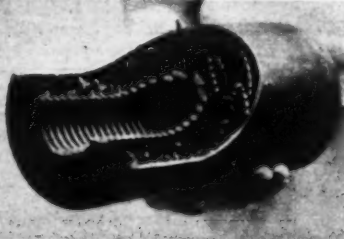
So don't think you've got the ultimate in exhaust refinement anymore just because you ordered a dual system on your car.

Undoubtedly the big "bottlenecks" here are the manifold castings and the reverse-flow mufflers. Most factory manifolds—with the possible exception of the late Buick and Corvette parts—don't show much concentration on flow refinement. A set of streamlined "headers" from one of the specialty exhaust shops like Hedman, Fenton, Belond, etc. will pay off handsomely, especially if you have increased cubic inches and breathing of your engine. Prices range generally from \$30 to \$75 a set. I can't recommend these highly enough. Mufflers are a little more of a problem because of legal requirements on noise. Unfortunately laws vary widely around the country; pipes that are acceptable in one community may land you in the jug 50 miles away! This is a problem you'll have to figure for yourself. I can definitely recommend the straight-through glass or steel-pack mufflers. Back-pressure is very low here. They do tend to be

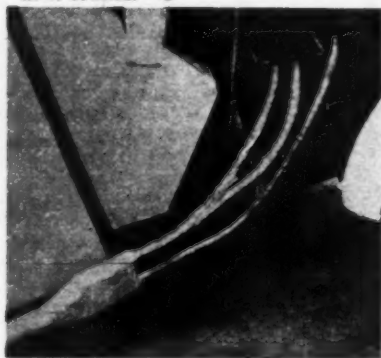
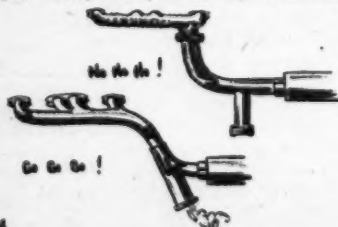
noisy, though. But rather than choke up my hot engine with factory reverse-flow mufflers, I think I'd be willing to baby the throttle 99% of the time!

A still better answer for the boy who uses his car regularly on both street and strip are "lakes plugs." These are becoming more popular every day. (Here you tap a pipe into the exhaust line ahead of the mufflers and cap the end of it; when the cap is removed the exhaust will take the path of least resistance and not go through the muffler). Lakes pipes are most effective when they tap into the exhaust pipe just below the manifold, before the sharp curve into the muffler (see drawing). This literally scoops the flow out into the atmosphere with a minimum of restriction. By the same token, though, when the pipe is capped you get a flow cushion effect in the dead section that may *reduce* power slightly as compared with no lakes take-off. It's a choice of evils. At any rate, make any lakes take-off as short and streamlined as possible. The long fancy lines are more show than go.

Next month we'll consider the very complicated problem of *selecting a car* to give you the kind of performance and utility you want. It's not as simple as it sounds. ●



One of the many special performance improving mufflers on the market. A straight-through type, steel-packed muffler by Newhouse.



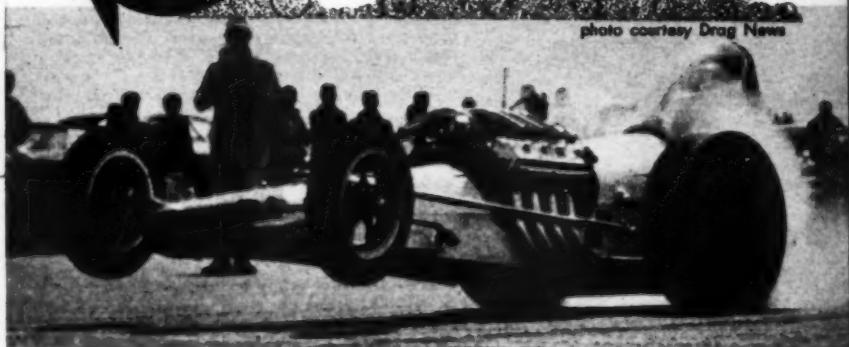
Drawing at left shows the difference between correct and incorrect lakes-plugs. Even though gases follow path of least resistance, it is best to let them flow directly toward the uncapped outlet. Photo above shows an attempt at free-flow exhaust.

the current crop of go-fast machinery—on the following 18 pages

DRAGSTERS

the latest and greatest

photo courtesy Drag News



Perhaps most symbolic of the frenzied activity at drag strips around the nation 'long about this time of the year is photographer Al Caldwell's shot of the Romeo Palamides dragster, front end airborne, on its way toward the clocks. The 392-inch injected Chrysler, on fuel, carried driver Pete Ogden out the other end of the strip at 156.00 mph just 9.6 seconds after he had left the start line in the direct-drive machine — copping 'B class at the sanctioned Kingdon, Calif., drag strip.

This is the month when all eyes are turned on the drag strips. New cars, and reworked older ones, have been put through a summer of testing, tuning and running and now engines are at their peak, thanks to the mechanics behind them who've learned how to get that last ounce of power out. They've had all summer to get ready, so before the snow flies there's time for one last go! Biggest event on this year's calendar is the NHRA's National Championship Drags at Oklahoma City, the results of which you'll be hearing shortly after you read this. Following, then, are 18 pages of the cars that will be making the news—the latest and greatest crop of dragsters.

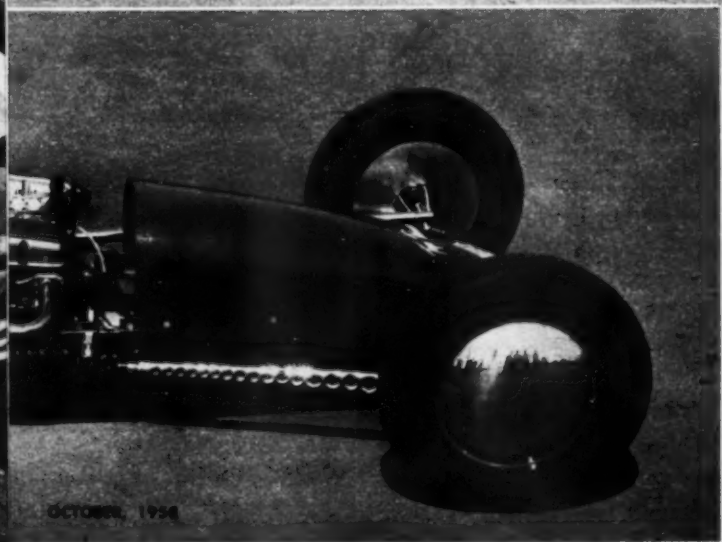
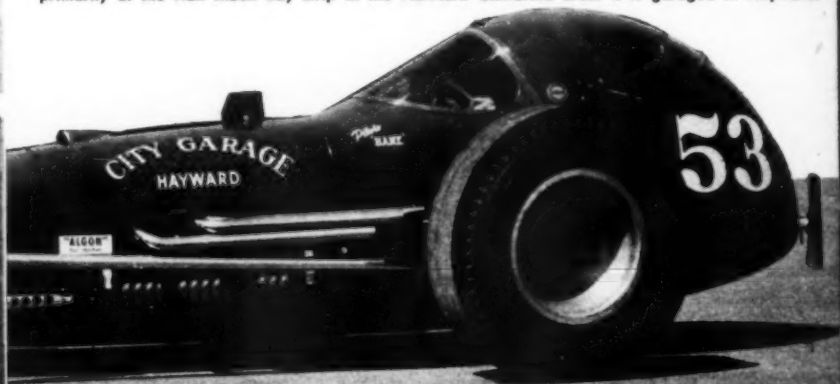


This month's cover is of the new Top Banana II, owned by Henry Vincent of Hayward, Calif. The big Chevy that powers the beautiful rig is George Santos' prized possession. Mutual friend Hillery Gavia supplied the building space where the car was conceived

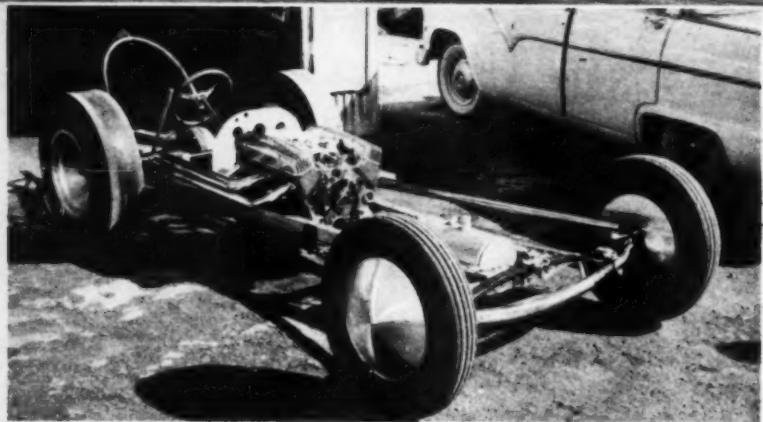


rod and custom **COVERage**

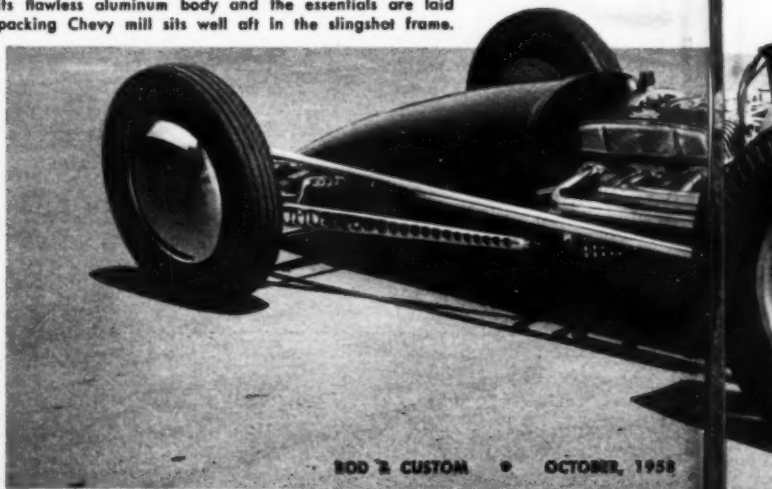
and constructed. The fellows are all members of the famed Hayward Head Hunters club. Though title Top Banana II was bestowed on the canopied dragster, the machine is generally referred to as the Vincent-Santos dragster — an invincible team who, when they pool their resources, ring a note of fear in the hearts of their competitors on the strips. The newly-built rod runs primarily at the Half Moon Bay strip in the Northern California area. It is garaged in Hayward.



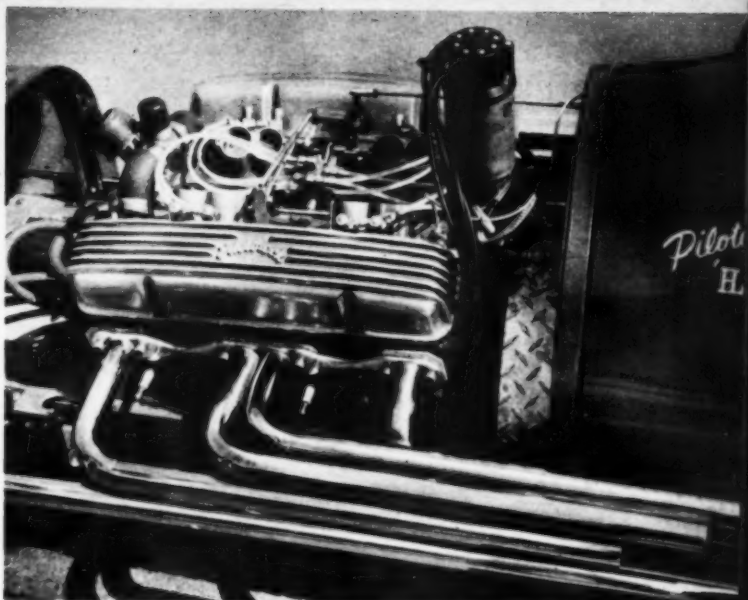
OCTOBER, 1954



Top: Best time out Top Banana II turned a remarkable 161.87 with a 9.33 seconds e.t. Here it leaves the line on its maiden voyage at the Kingdon strip in Lodi. Bottom: Here the 1168 lb. machine is stripped of its flawless aluminum body and the essentials are laid bare. Power-packing Chevy mill sits well aft in the slingshot frame.



photos by burnley



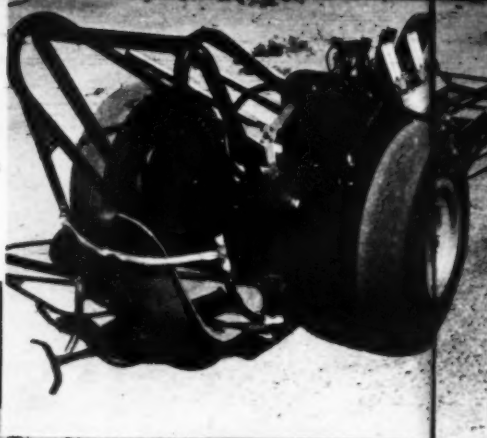
Chev V8 has been hogged out to $3\frac{1}{8}$ bore with a $3\frac{1}{4}$ stroke. A Polvin Eliminator cam actuates chilled steel lifters. Biggest part of mill's pressure comes from the Algon injectors which blow a potent fuel mixture through polished ports. Aside from these changes the big V8 is essentially stock! A light flywheel spins a short shaft which leads to a Halibrand rear end. No transmission is used. 13-foot car is a scant 40 inches tall.



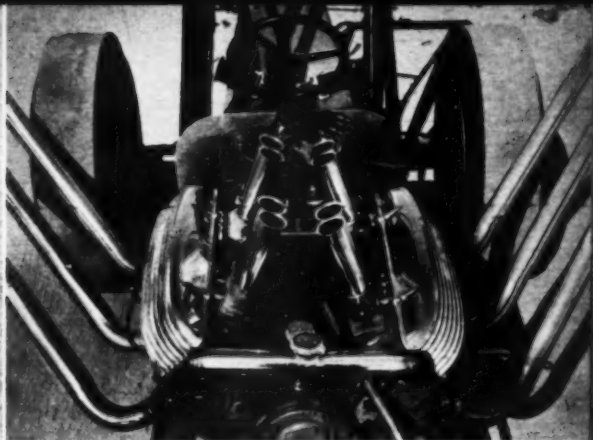


DRAGSTERS

the latest and



From
Sto
The
in
the
fly
in
and



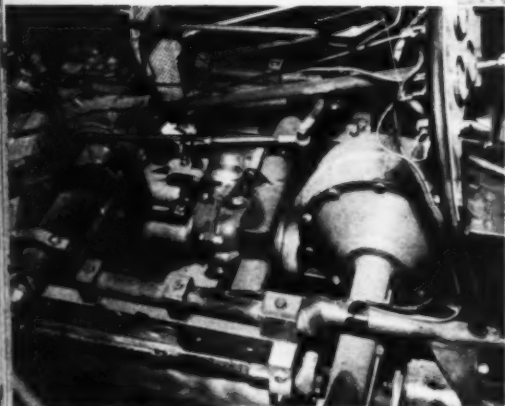
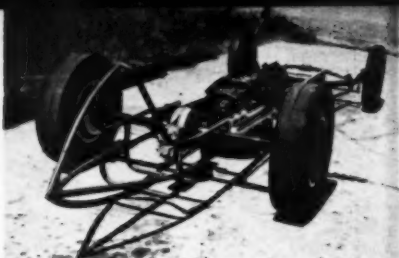
From Novato in Northern California comes this Cadillac powered rail. Care and feeding are by Stokes and Davis, their prodigy having turned up a 134 mph time at the Half Moon Bay strip. The car is simplicity itself with nothing, but nothing!, not essential to getting down the strip in the least possible time at the fastest possible speed. Radiated water is limited to just what the block will hold plus perhaps a quart in the small capped tube joining the heads. The flyweight's impetus stems from its Hilborn-injected Cad rocker arm eight stuffed as far back in the tubular space frame as possible. Big valves, big bore, ported and polished intake and exhaust passages all add their bit toward the purpose for which this car was designed and built.



photos by burnley

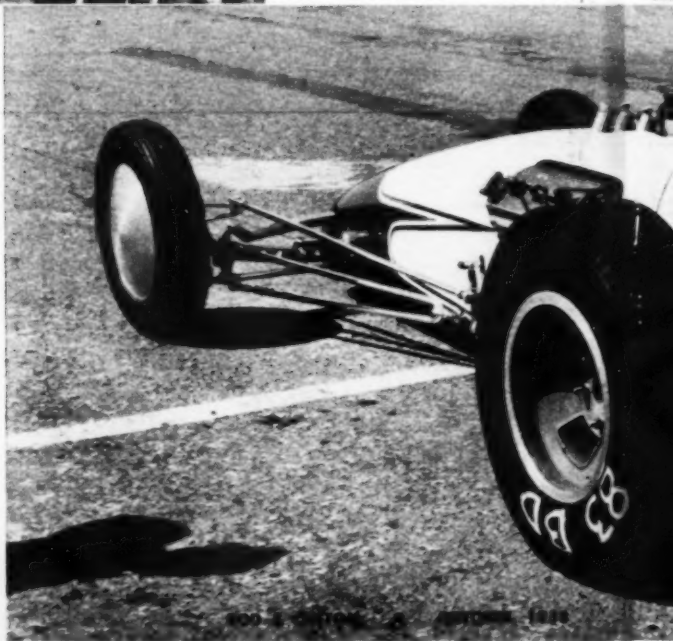
The Stokes & Davis rail was built to modern practice; that is, with a narrow rear tread, which has been proven recently helps directional stability, and with the driver perched aft of the rear end in true slingshot fashion. Protection is via hefty rollbars mounted in rather an unusual fashion. That which is not tubing has been drilled so full of holes that it looks like mice have been at work. Total weight of the rig is not known, but this car promises to be a screamer when its bugs have been worked out. So far, its a consistent high-placer in its class.

DRAGSTERS the latest and



Jack Friedland's new dragster has a lot in common with other cars in its class — it runs a Chrysler engine. But there the similarity ends. This new car features an aluminum frame, with some chrome moly components, a torsion-suspended rear end, an impressive array of Hilborn fuel injectors. The engine originally built for this car blew up when it was loaned during the construction of the chassis, but the "little" engine in it now — 378-inches, stock bore and $\frac{1}{4}$ stroke — has enough steam to shove the rail through the quarter at 149.91, on alkyl only. Wait'll they pour the fuel to it! The rear end is locked, that is, tires drive equally, and the center section is a Holibrand quick change item.

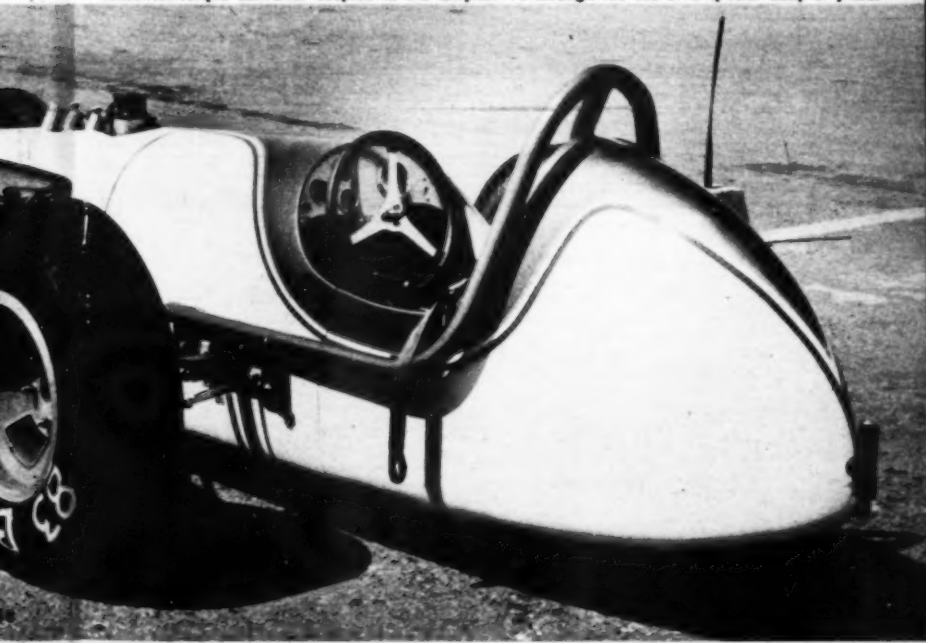
photos by Burnley



a lot
ass —
re the
atures
rome
ended
lborn
inally
t was
f the
in it
d 1/4
e the
1, on
vel to
fires
ection
item."

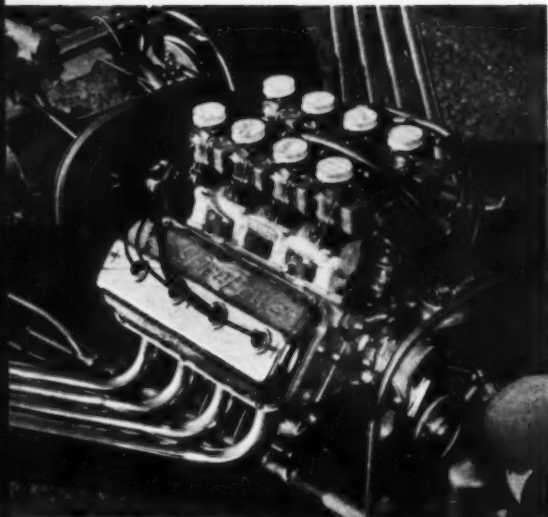


Friedland's needle-nosed dragster, with body by well-known aluminum hammerer Jack Hagemann, awaits its turn at the strip with batteries plugged into the special receptacle. The 104" wheel base, with stock Ford tread fore and aft, was painted by Oakland's Tommy the Greek and received much acclaim at this year's National Roadster Show. The unusual transmission in the car is an industrial torque converter coupled to the Chrysler V8 through the use of a special adaptor plate.



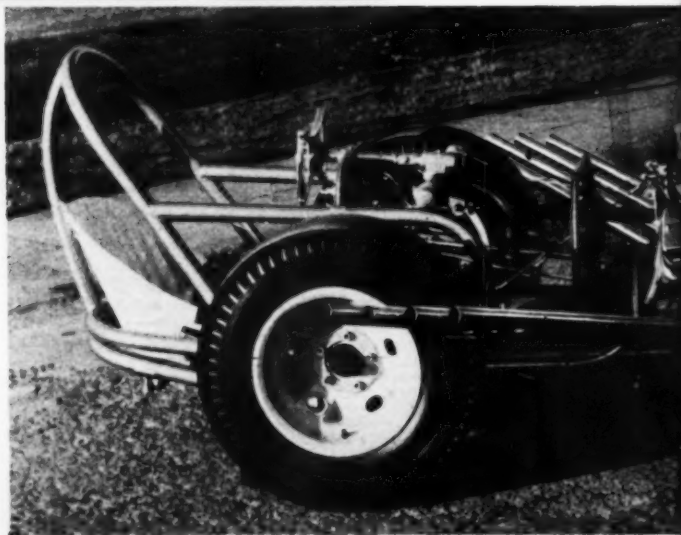
DRAGSTERS the latest and

Office of Rowland's Portland-built dragster is not overly spacious, but then driver seldom spends longer than 10 seconds in it. Armored quick-change rear end sits right behind the '42 Cadillac transmission which is adapted to the Chrysler by a Cragar adaptor. The clutch and flywheel are Schieffer. From a 1923 Franklin came the center-steering unit. While the axle housings on each side of the center section are Ford, the axles within were cut from a Hudson.

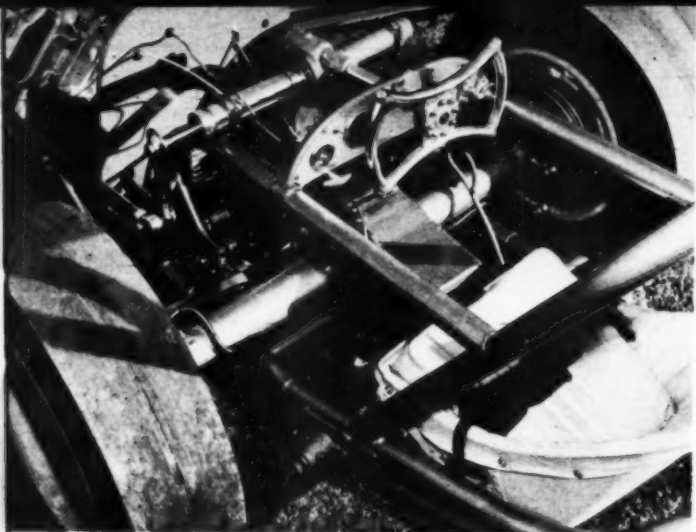


Left: Big Chrysler mill has been bored to an even 4 inches and the stroke increased to 3.9 inches—almost square. The heads have had the polish treatment after all passages were opened up to the limits of the gaskets. Engine has been fully balanced. Hot cam is an Iskenderian 5-cycle. Note 8 carbs.

By PETER SUKALAC



nd-
erly
lom
nds
rear
'42
is
y a
and
n a
ler-
axle
the
xles
son.

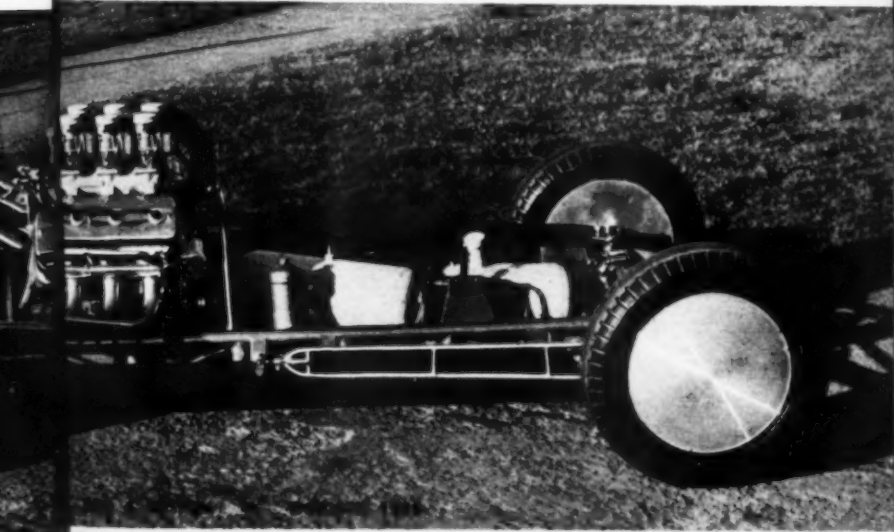


been
and
3.9
The
reat-
were
the
fully
ken-
arbs.

ACCORDING to Earl and Monte Rowland of Portland, Oregon, half the fun of constructing a backyard bomb is in the building. And Earl should know since he has been putting the hot ones together for 39 years. The latest creation of the well-known father and son team is a Chrysler-powered dragster that promises to shake up everyone in the Northwest

that comes within earshot of a strip.

The frame of the car is of the truss type built up from 2-inch seamless tubing. The front of the frame is suspended on a Ford transverse spring that has been modified with reshaped and polished leaves. The spring is mounted to the frame by an unusual swivel link that is designed to allow the engine torque to work out of the



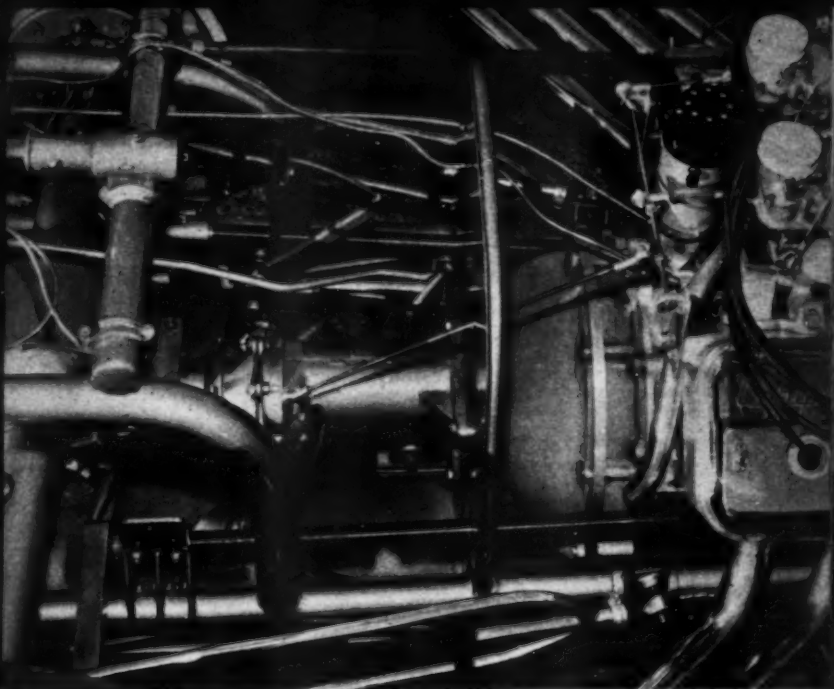


Appare
photo's
Rear su
tape. Fr
bushing

frame
experi
drive,
carryi
husky
pende
bars.
each v

The
Boneb
mill i
with 2
kit, W
igniti
The h
and g
static
on th
Black

ROD A



Apparently congested area is actually a well-planned piece of construction. Transmission is at photo's center with covered rear end right behind. Neatly welded machine features tubing frame. Rear suspension is via torsion bars. They run on each side of the gear box and are wrapped with tape. Front bar anchors are adjustable so height of car's rear can be precisely set. Rear torsion bar bushings are bolted to supports on frame just ahead of rear axle housing. Car is from Portland, Ore.

frame without setting up the reaction experienced in a solid mount. The final drive, consisting of a Ford housing carrying a solid axle made up from husky Hudson components, is suspended by fully adjustable torsion bars. Houdaille shocks are used at each wheel.

The engine was put together by Bill Bonebrake of Portland, Oregon. The mill is a 392-incher and is equipped with 2" intake valves, Iskys 5 cycle cam kit, Weiland Dragster manifold, Vertex ignition, and an 11" Schiefer flywheel. The heads were ported to the gaskets and given a high polish job. A full static and dynamic balance was done on the crank assembly by Blackie Blackburn.

continued on p. 81

Engine's fuel is carried in the tank at the left, the one up front handling the watering chore. Precision-built radius rods assure rigid positioning of the front axle, making it whip-free.

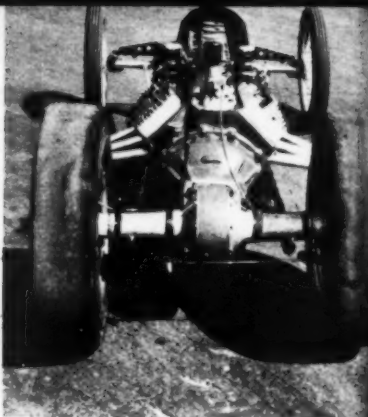




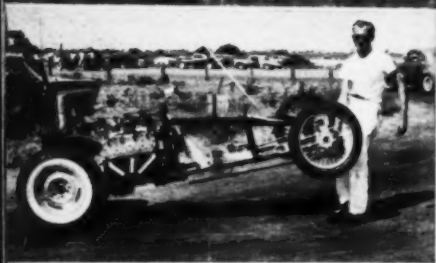
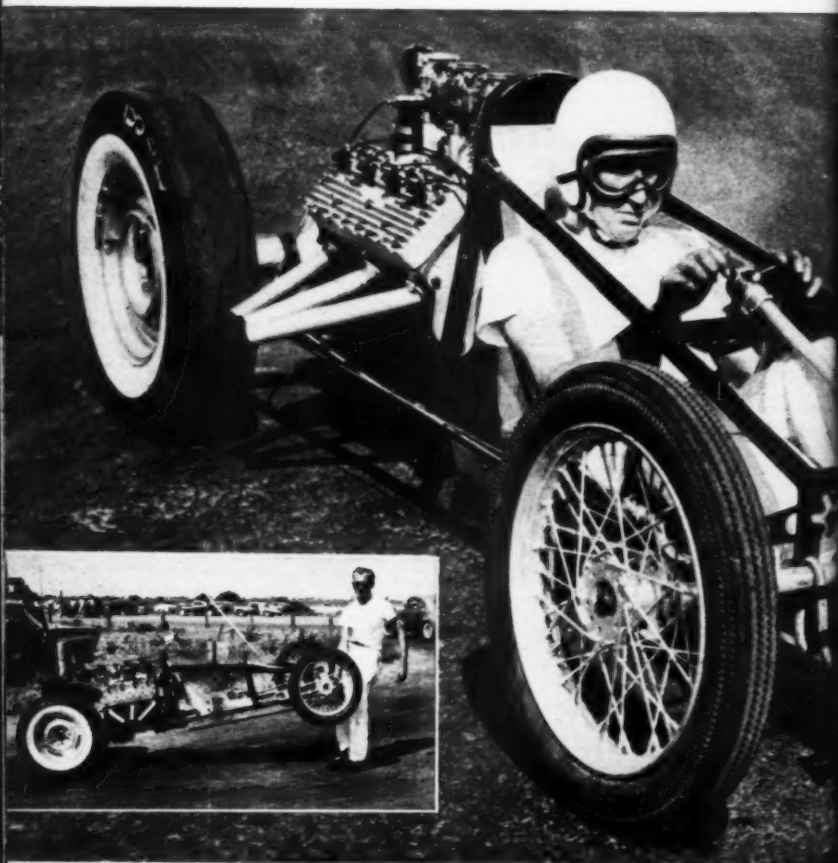
DRAGSTERS

the latest and

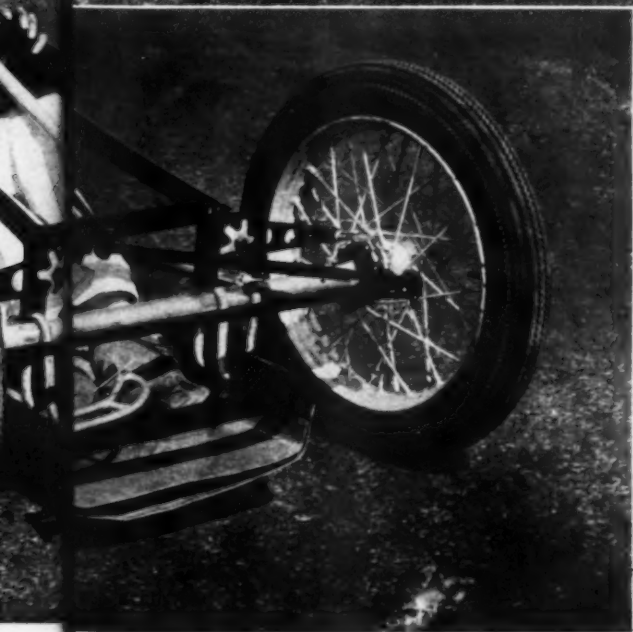
"Flatheads forever!" is Merle Brennan's cry when asked why he didn't go the rocker arm route in building his 835 lb. flyweight car. The '49, 284 cu. in. V8 twirls an Iskenderian 404 cam, with nearly everything else inside supplied by Edelbrock; that includes stroker kit, heads and manifold. 3 97's sit atop the intake manifold. Output is estimated at 180 hp.



Frame
course.
to date
hails fr
fails to
one-ha



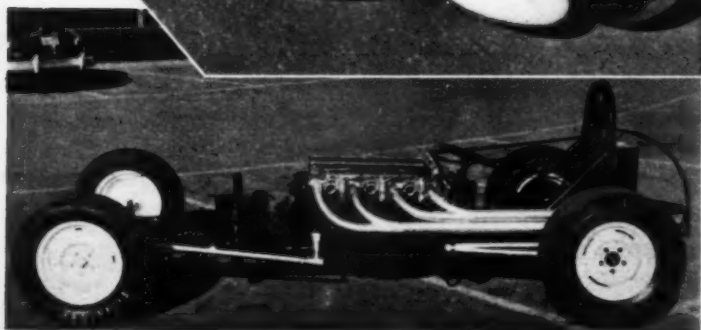
Frame for the little rail job is tubular, $1\frac{1}{2}$ " stock with an .060" thickness — chrome moly, of course. Front suspension is unique — aircraft bungee cords. Radius rods locate the axle. Best time to date, 131.23 with an 11.02 e.t., not bad for a flathead running in direct drive. Though the car hails from Reno, Nevada, it runs usually at one of the Northern California drag strips where it never fails to attract much comment. When asked its weight, owner Brennan calmly hoists the front end one-handed. Car runs in gas class; cost an even \$1,000 to build, promises to become famed dragster.



photos by burnley

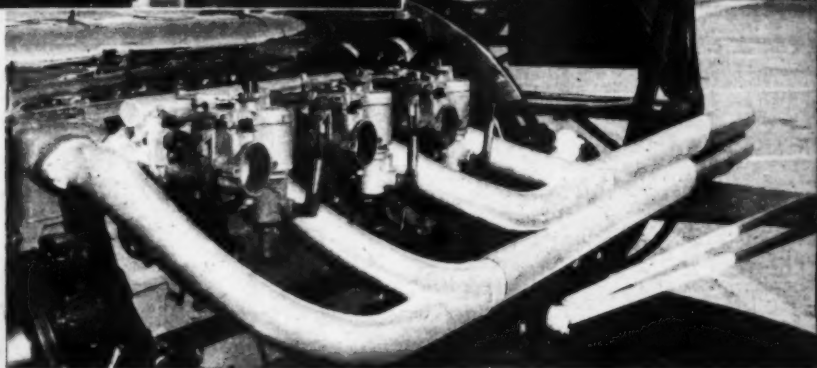


One of the very few 6-in-a-row dragsters in the running, Bertolucci's glass-bodied car is GMC powered. The 302-inch engine has a full load of goodies; with some Wayne parts, Spaulding ignition, side draft carburetors and with a beautiful set of flowing headers to lead the catting gases smoothly rearward. Chassis for the Sacramento, Calif., car is that of a '28 Chevy primarily, with light tubing crossmembers. Front suspension is '41 Willys while the rear end department is handled by a Ford unit mounted solidly to the frame.



registered
ed car
has a
e parts,
ors and
ders to
ward.
is that
tubing
Willis
handles
frame.

Photo at left shows short driveshaft which leads aft from the '41 Cadillac gearbox into a Holbrand q.c. rear end. Business side of the Jimmy (below) shows 3-in-a-row flatless, sidedraft carburetors which dump fuel to the hungry 302-inch hustler. The body, chassis and engine of the drogster are the product of Bertolucci's Kustom Shop in California's capital city. The car's nose and tail sections are fiberglass with hand-hammered .052 aluminum belly pan and hood segments. Car is red and white.

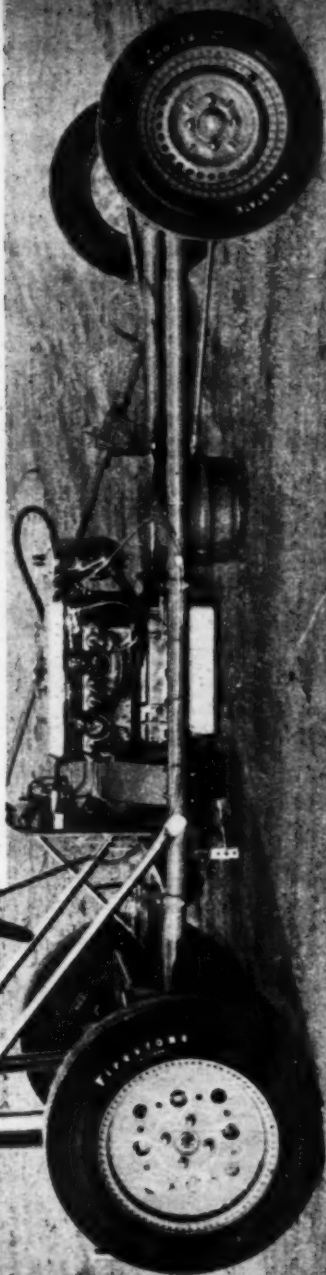
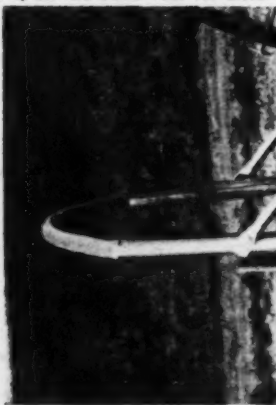


DRAGSTERS the latest and



330 pounds of real go! The lightest dragster of the bunch is Dave Janas' Crosley with fuel injection, drilled wheels and front axle; everything that goes into making up the more familiar full-size counterpart. The car owner's ultimate desire is to break a hundred. Class in which car runs permits twice the displacement figure of the 4, but the owner runs for kicks.

photos by Barris



Homem
using c
flies an
emits a
exhaust
despite
stroke
transmi
Crosley
similar
with co
fabrica
weight
co-buil
Toledo
in size
a go
will so
body
Car sh
overco
placed
cars h
and s
around

Homemade injectors are cut down carbs using only throttle bodies with butterfly valves and jets. The high-revving Crosley emits a dreadful scream from its quad exhaust stacks. Engine packs a wallop despite its tiny size; 2½" bore, 2¼" stroke for about 44 inches. Rear end, transmission and steering are also from Crosley components. Frame is tubing with similar X-members joined to side rails with connecting rods. Rear wheels were fabricated, then swiss-cheesed to cut the weight to minimum. Owner Janas and co-builder Cassaubon are members of Toledo, Ohio's, Pharaohs club. Though in size not a great deal larger than a go kart, the 97-inch wheelbase rod will soon be packaged inside a required body to qualify it for official drag use. Car should do well when initial bugs are overcome and concentration can then be placed on speed alone. Crosley-powered cars have done well at West Coast drags and several have shown the short way around sports car tracks and in boats.



Un-gilding the Lily

PLANNED

THE JUNE 1957 issue of Rod & Custom revealed to its readers a close look at R & C's Dream Truck; a magazine participation project to end all wherein a radical, \$10,000 custom was handbuilt in answer to ideas submitted by readers. Prior to this time we had busied ourselves with a multitude of articles, photographs, diagrams and stories describing the hows and whys behind the pickup's construction. Thus much of the mystery was taken out of custom restyling as the secrets of sectioning, chopping and channeling were told in simple how-to-do-it form. Too, untried suspension innovations and new hopping up techniques were instigated, and dutifully reported upon, in a similar manner. The result was a radically different kind of custom/rod, one which some ten thousand letter-writers and idea-senders could truthfully say they had a hand in. The labors of no less than 50 leading specialists, in each of many fields, participated in the joint-construction job which consumed a full four years.

Taken on a tour of the nation in a string of custom shows from coast to coast, mail began pouring into our offices from many who voiced objections against certain of the truck's features. Naturally, it's an impossibility to satisfy all of the people all of the time — especially as uncompromising a group as auto fans — so we began a chameleon-like series of annual

changes not unlike Detroit's face-lifting thing.

The June '57 issue referred to above disclosed our hauler in its garb for that year. Shortly afterwards an Indiana customizer of no little reknown, Bob Metz of Shelbyville, was engaged to give us the "new look for '58." This he did, including a set of the wildest fins imaginable and a striking new paint job.

But now with 1959 just around the corner, let's see what next year's car shows might well be bringing to your home town.

For some time we had been faced with a decision; to sidestep our annual-change policy and leave The Truck as it was, or restyle it — which would be a lot like gilding the lily since all conceivable alterations had been performed. Fortunately, new conceptions in styling helped us out of a tight spot. Rather than *add* to The Truck's "overdoneness" (as some enterprising individuals dubbed it) why not *subtract* from it? *Simplify* it. *Refine* what

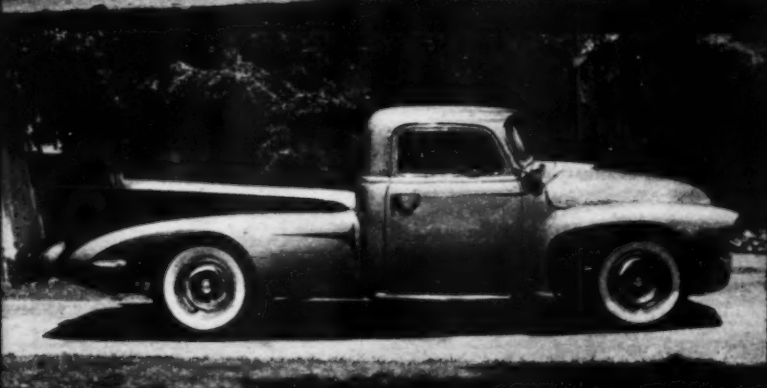
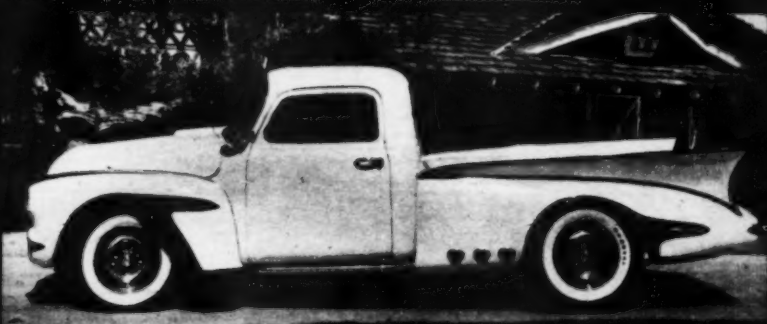
continued over leaf

Those familiar with the Dream Truck will remember laces pipes ran beneath the doors. New exhaust system, by GP Muffler of Monrovia, Calif., eliminated pipe, so void was filled with novel running board. Tubing, curved at each end, is bracketed to body and the step area covered with perforated metal. Viewed from side, tho, unit looks like old exhaust.

ROD & CUSTOM

**the Dream Truck for '59 —
altering a restyled custom**

PROGRESSION

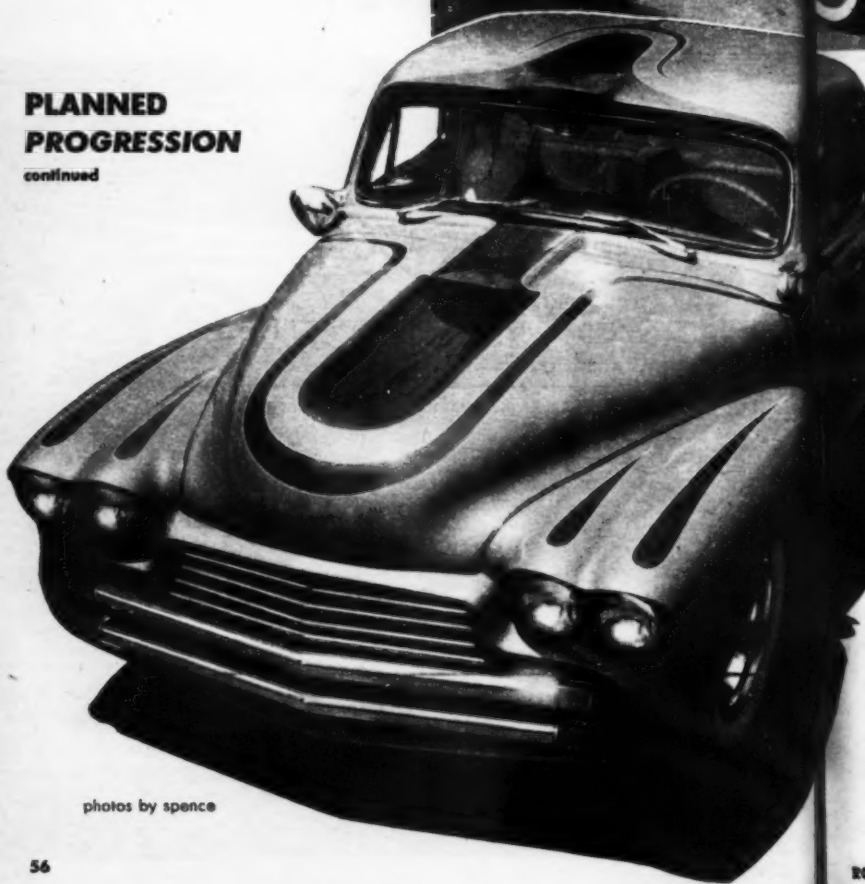


was already done. That was what was needed, not further overembellishment.

And thus it came to pass that the tattered hauler, with over 25,000 show miles behind it, rolled 'neath the "Keep Out" sign of the Barris Kustom Shop in Lynwood, California. Within two months the expensive transformation had taken place (total valuation is now \$12,000) and we're set — albeit a little early this year — for the 1959 custom shows. ●

PLANNED PROGRESSION

continued

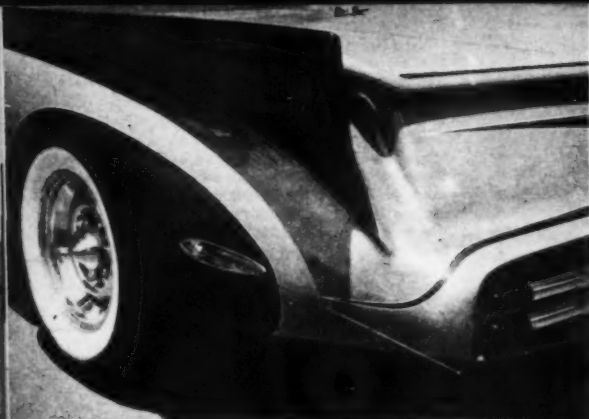


photos by spence



The old and the new; contrast between The Truck's appearance in '56, '57, '58 and now. Prior to lacquer application, truck's coloring was 2-tone grey primer! Second photo shows it with its Pearl-escant coat trimmed in 2 shades of purple. At third stage, scallops of purple remain but base color was changed to white. Now with softer scallop lines, the inherent lines of the hauler are enhanced. Greatest change for '59 was in the paint, with metal reworking limited to removal of exhaust ports in the rear fenders and softening of the quarter panel's leading edges. The interior of the Dream Truck was dyed.





Extended antenna protrudes from Buick reflector shield which last year housed a red lens. Previous aerial location was edge of tail-bar shell; units pointed skyward.

PLANNED PROGRESSION

continued

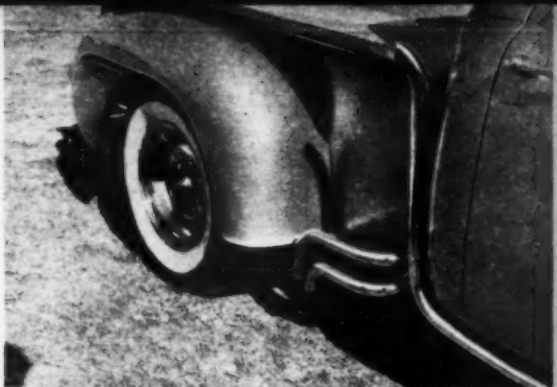
Though rear fender and fin were hammered from same metal sheet, fin seemed separate due to trim line of paint running along the line of divergence. New treatment has the fender and fin the same color with trim line along top edges only. New scallops behind wheels add apparent length to The Truck. Cost of this year's change; an even \$1,000.



A possible new trend: All-metal bed cover of polished aluminum, sold in hardware stores as a patio-roofing material. The two 28-inch wide sheets cost a remarkably low \$4.50, slide into chromed channeling along edge of bed and center strip. Easy access to gas fill pipe is through protruding knock-off cap. Tank has been relocated into the bed.



Early pipe treatment had 3 stacks just ahead of fender. Two pointed down were for muffled exhaust, upright one for straight-out gases when dragging. The system was changed at time of the flined fender construction; though the same 3 outlet system was retained, exhaust was emitted from portholes in slab-sided quarter panel. For '59 ports were flined and new exhaust system installed which exhausts through conventional muffler/pipe setup with tips beneath rear of bed.



Comparison of the old and new: Exhaust was originally ducted through 3 pipes on each side. Two exhausted muffled gases, the 3rd emitted straight-out exhaust with baffle removed. Same setup even with slab-sided fenders. But now pipes have disappeared altogether; exhaust running through concealed system which ends, out of sight, under bed. Leading edge of rear fenders have been reshaped to eliminate former square-corner design. Now they blend into cab's styling. Interesting scallop helps to fill out the blank area.



Original bed cover was frieze and Naugahyde tarp protected by weather-resistant, fully transparent plastic. However, changes in temperature caused formation of moisture between materials resulting in stains. A new aluminum cover was devised which is able to stand even bad weather.



THE BASICS OF

Customizing



photos by barris, beindorf

the first in a series of articles designed to show the reader the how's behind welding, leading, frenching, and the other mysterious terms which are the very basics of the wonderful hobby of customizing

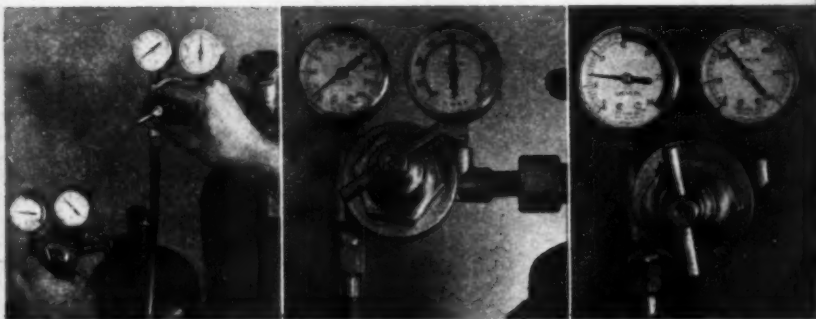
WHEN IT comes right down to it, there aren't a heck of a lot of things you can do to your car's appearance without using heat. Though fiberglass is coming in strong for filling holes, shading panels, etc., and there are products marketed to plug holes by threading a stud into the opening, it's still welding and brazing that are most often called upon when it comes time to change your car's shape by adding, subtracting, shortening, lengthening, or just plain changing all the panels, corners, joints,

seams and openings that make up its configuration.

You needn't spend that hard-earned green at a welders' shop. The steps involved in using a torch aren't so involved that you have to rely upon another's capabilities to rid your chariot of those door-handles or that nameplate across the very nose of your hood. If, say, you're set on fabricating a dragster chassis and have never picked up a torch in your life — then don't practice where safety's at stake.



Other than the oxygen and acetylene tanks, which can be purchased outright or leased, this is all you really need for 90% of the welding on your car's body. Torch with a small tip (i.e., #1 in a Victor), hose, a friction lighter and a pair of goggles. Various sizes of rod, both welding and for brazing, are needed but depend upon work to be done. Armed with these, you can proceed.



The gauges atop the tanks are all-important. Smaller tank (at left) is the one containing acetylene. Righthand gauge at its top shows total pressure in tank, left one discloses pressure to welding tip. It's set for 7 lbs. for the average welding job on sheet metal. Right tank is oxygen. Right dial shows pressure in tank, left shows pressure to line. For average welding job, set it for 10 lbs.

But, keeping things on a simple level, if all you want to do is plug a hole or two, follow that time-worn phrase and *do it yourself*. You'll be much more proud if you can tell admiring onlookers you customized your car alone—without help from that around-the-corner shop.

We're not going to recommend you hustle out and plunk down about seventy-five clams for a torch outfit to use in filling up five bucks worth of holes. No, we're going to suggest you borrow one from a buddy or, better

yet, jump out to that rental outfit most communities have and round up all the welding stuff imaginable for a paltry coupla bucks a day. Then when you've lugged all the paraphernalia home, you're ready to proceed into the mysteries of customizing—all by yourself. So, assuming the legwork is over with and that you've got a torch outfit to use over the weekend, here are the very basics in customizing—those which you *must* know before lighting up that torch.

ALTHOUGH THE average enthusiast has a lot to learn in the care and feeding of a welding outfit, a lot of the uses of a torch can be side-stepped as long as we're going to concern ourselves with only the simple welding of the metal used in an automobile body. And for now we needn't concern ourselves with the many types of rods available for the uniting of non-compatible metals, the fluxes to help adherence of various elements or the many types and sizes of torch tips for from everything to uniting pieces of tinfoil to joining sections of railroad track. So school's over before you've scarcely begun. Just pick up a torch fitted with a small tip, as shown, adjust the tank gauges as shown on the preceding pages, then fire up the torch itself as shown here. From here on out experience is the best teacher anyway, so grab a couple of sections of sheetmetal scrap and practice. Weld a couple of seams, fill a hole. Pretty soon we'll almost guarantee you can tackle a minor hole in your car's body with a great deal of success.

The object of welding is to heat the pieces of metal involved until the melting point is reached; this is known as "puddling". When two pieces are

united, heat the halves simultaneously; for filling a hole, the area around the edge must be puddled. Then rod is introduced to the edge of the flame until it too puddles, and the metal and rod "run" together. Along a seam this is accomplished in a motion back and forth between the halves; this results in the bead with which you're probably familiar, one not unlike that of a closed zipper.

Brazing is handled in much the same fashion as welding, but because it requires less heat (because the metal is heated until it begins to show cherry red only, not heated to the puddling stage) it is used very often in customizing. Heat, of course, causes metal distortion which can buckle a panel and thus lay waste whole sections of an automobile. This is the most serious drawback to inviting fans to pick up a torch and try their hand at customizing. (If you're doubtful as to your prowess with a torch, then, stay away from the centers of panels which are primarily flat. Stick to compound curves, then, or stay close to seams or other conditions which would add stiffness to the panel being worked on.) Thus for the steps outlined here, we're brazing up holes, not actually welding them.

THE BASICS OF Customizing

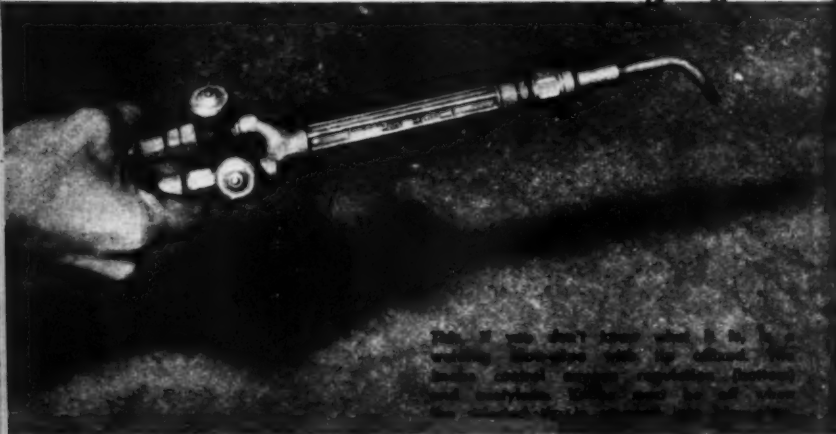


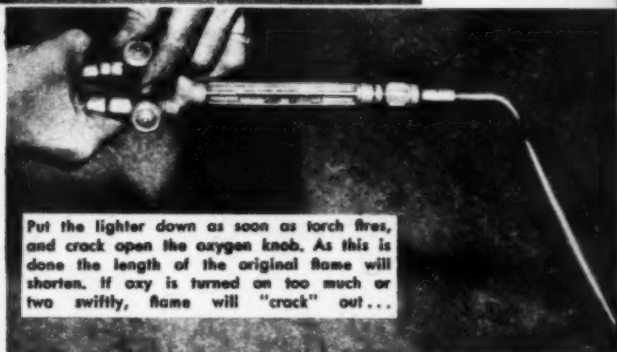
Fig. 11. If you don't know what it is, it's welding. It's done with the torch. The flame heats the metal. The rod melts and runs into the hole. The metal and rod "run" together. This is the basic of welding. The rest is just practice.

ously;
and the
rod is
flame
ul and
n this
k and
results
prob-
ast of

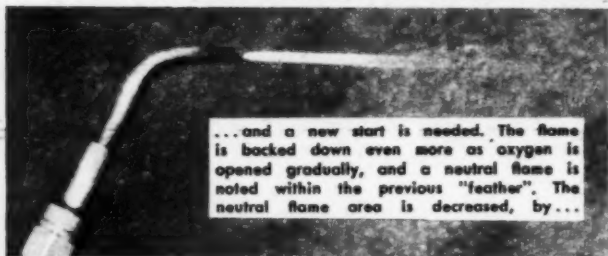
n the
cause
e the
show
o the
often
auses
le a
e sec
s the
fans
hand
ful as
then,
annels
k to
close
which
being
out-
s, not



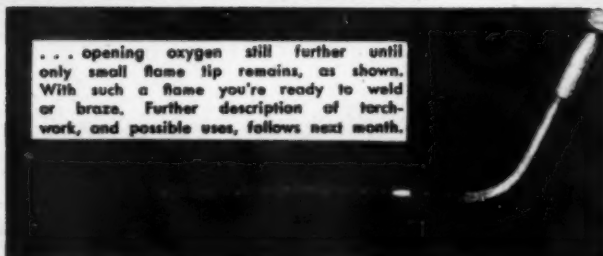
Friction lighter, when scratched just in front of tip, fires torch. Initial light is accomplished by having acetylene knob twisted about one-half turn. Flame distance shown is about right for first firing of torch.



Put the lighter down as soon as torch fires, and crack open the oxygen knob. As this is done the length of the original flame will shorten. If oxy is turned on too much or too swiftly, flame will "crack" out...



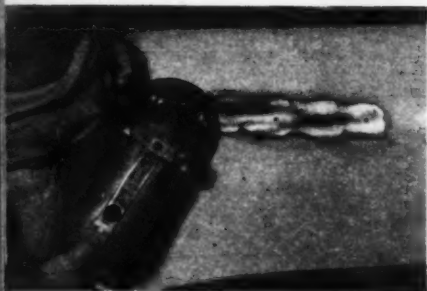
...and a new start is needed. The flame is backed down even more as oxygen is opened gradually, and a neutral flame is noted within the previous "feather". The neutral flame area is decreased, by...



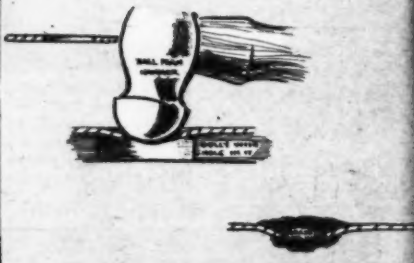
... opening oxygen still further until only small flame tip remains, as shown. With such a flame you're ready to weld or braze. Further description of torch-work, and possible uses, follows next month.

Brazing requires less heat than welding, so we will use that method to fill these small holes and thus lessen the chance of incurably warping the quarter panel. The nameplate has been removed, so let's go.

HOLE FILLING



By removing paint from the area to be worked, we help ourselves in watching the metal as it's heated, eliminate acrid odor of burned paint, and ease the sanding and repainting job which comes at end of job.



Sketch shows more clearly than a photo how holes are countersunk prior to brazing. This gives brass a larger surface to which it can bond. Brass "plug" would eventually fall from hole if this step was left out.

Since this first lesson in custom work is intended to show the hole-filling procedures, we'll skip briefly over the metal refinishing steps and look more closely at them in a subsequent installment. Object...



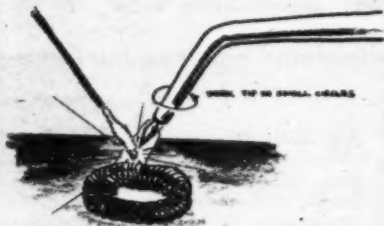
THE BASICS OF Customizing

ARMED with the basic torch knowledge disclosed on the preceding pages, the average enthusiast is probably capable of trying his hand at a little hole filling, provided he has the confidence to proceed. If such an attempt is his first crack at it, then he must be *mentally* prepared as well as equipped with the necessary tools and materials. Chances are he has read of the pitfalls of combining automobiles and torches and thus fully expects the first attempt to end in utter disaster—and it is bound to if he worries enough about it. But there has been far too much emphasis on the “you’ll ruin it” argument. Many of the cars shown in

R & C are amateurs’ attempts—and they’ll stand against the professionals’ work any day of the year.

So besides the tools, and the holes to fill, one needs confidence in his ability with handtools of the type required and a sense of trust in himself. Get the fret out of mind by remembering that the body shop around the corner can glue back together that which you botch should worst come to worst.

With experience being the best teacher in all cases, let’s proceed with the job at hand; that of filling five tiny holes through which once passed the clip studs of the “Chevrolet” script on the quarter panel of a ’56 model.



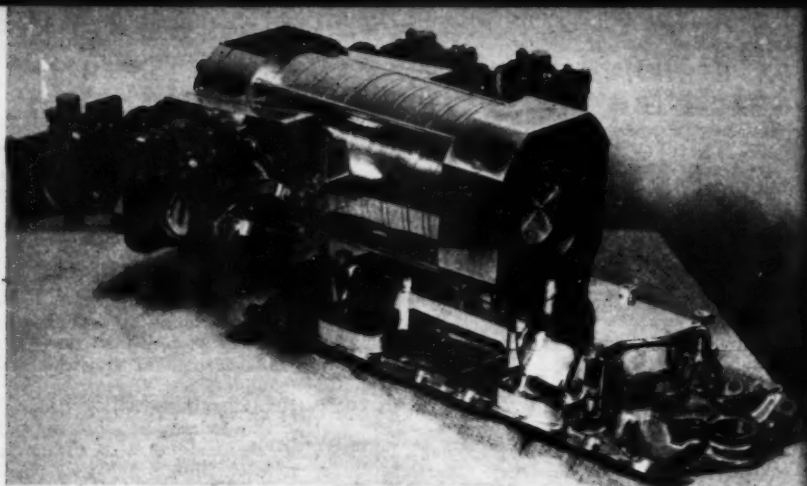
This drawing reveals the pattern made by the torch as it is played round and round the hole, finishing up the filling job at the center. Holes of half-inch or larger are not done like this, as we’ll see later.



With the gauges set as described earlier and the torch and rod played around the holes as outlined, the openings are gradually filled in. Don’t do consecutive holes as this will concentrate heat in one spot.



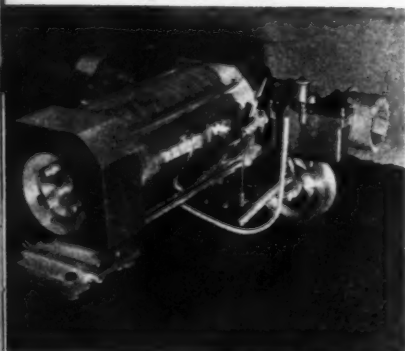
...is to use special tools which will show up the high and low spots revealing areas that have to be worked up, or down, as case may be. Here a file is used to smooth the marks left by grinder. Prime paint is next.



The BIG BLOW

a factual performance report on the Latham

By LES RITCHEY



photos/lynn

The Latham supercharger, just as it comes, right out of the box. It's so shiny and good looking that the crew at Performance Associates hated to get started with the installation for fear of getting it dirty. This concern was momentary and job was soon done.

WE HAVE been quoted before as saying the problem of getting more horses out of the modern high performance engine is very complex. The normal channels to follow are almost worn out; for example, to regrind a camshaft and try to increase torque and horsepower over some of the factory hot cams is almost impossible. Change the torque curve, yes, but to make the increase pay for all of the money and time involved, a lot of enthusiasts are saying no! The only road open to satisfactorily making a stormer storm better is by supercharging. Today there are four or five superchargers available in kit form or close enough to accomplish any installation with a little machine work and first class mechanical work.

First let's talk about something that a lot of would-be champions don't think about. Do you want maximum go or do you have to use your car in between drag dates or lakes meets? If

ROD & CUSTOM

V

am

e as
ting
high
plex.
e al-
rind
rque
fac-
ible.
t to
the
en-
road
g a
arg-
five
orm
in-
work

that
on't
num
r in
? If

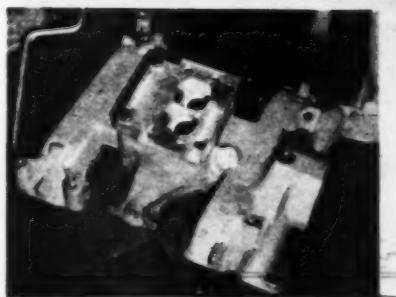
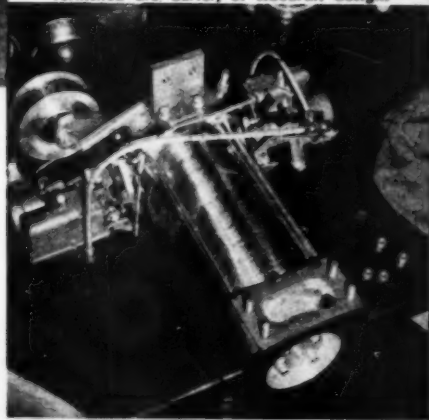
TOM

An easy to see here, the blower has a very small equalizing chamber between the volute opening and the flat plate that bolts to the intake manifold. Fine machine work on this top quality product is evident throughout. Most impressive.

Model shown here is the standard two-carburetor item, turned upside down to show the volute outlet to the intake manifold. This rests on top of the four-barrel carburetor flange. Carbs that are furnished are Carter, of sidedraft design.

axial flow supercharger

a person wants to build something to just drag with, many ways are available, but if you have to use your machine on top of all this you may have trouble. We think we've found a way to get the absolute optimum for both. It's the Latham Axial-Flow Supercharger. We have run a series of conclusive tests on his production unit and the competition four-carburetor kit. It has, to say the least, been gratifying because these units really put out! The axial-flow theory has long been used on jet aircraft engines, but was assumed to be too costly for practical use on automobile engines. Mr. Norman Latham has succeeded in overcoming the problem and is putting it out for our automobiles in quality form on top of it. You've never seen a more beautifully finished piece of equipment and the top workmanship in the whole assembly really shows. The theory this blower works on has been written about many times and I am sure most



The stock Ford intake manifold used in these experiments was modified to facilitate better breathing by flowing the sharp edges with a rotary file or burring tool and polishing as far into the ports as was possible. Surfaces are now smooth.

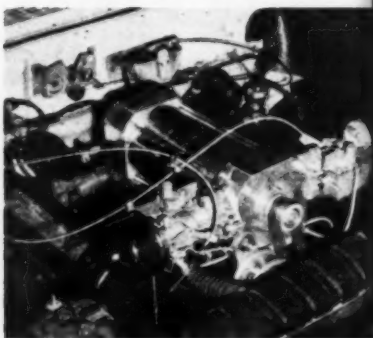
The BIG BLOW

continued

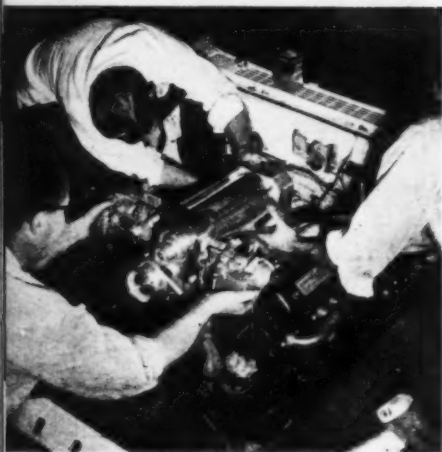
of you readers know what it is supposed to do, so I don't think it will be of any benefit to go deep in the basic theory of how it gets the air into the engine. It is, in effect, a compressor and should be matched to a given displacement engine, having more or less rotor and vane stages, depending on the size of the engine to be blown. This is very critical and is the reason Latham makes three different size compressors. These compressors put out a certain amount of air per minute regardless of what the engine will accept as long as the 'charger shaft turns the rpm, so if you decide to purchase one of these big blows the most important thing to remember is your engine's displacement. Of course this works two ways. If you put too small a compressor on too big an engine you'd be in trouble. In this case there is insufficient pressure to keep the cylinders charged, and in the opposite case of being too big for the engine, it compresses the air between the cylinders and the blower unit causing the

charge to overheat, the density is lost and horsepower falls off, so take heed!

The first test we ran with the Latham was with the standard kit using two Carter side draft carburetors. First, the Performance Associates' stock 245 hp *Ranchero* was run at the Pomona drag strip. It was run four times within a period of two hours. This car was tuned sharp because we wanted the comparisons to be as near correct as possible. The car's four run average was 90.22 mph with an average e.t. of 15.20. The car was then returned to the shop and the standard Latham kit was installed. Only bolt-on equipment was used as furnished in the kit. No fuel pump change, distributor change or spark advance curve change were made. We just took it out of the box and installed it. The car was run on the chassis dyno at 4000 rpm and at maximum load to get the highest horsepower reading.



Installation completed (engine is running) and a lovelier scene or sound is difficult to find. Cables are for manual choking.



Came installation time and the whole bunch gets into the act. Possibly because of the photographer, but mostly because it's heavy!

The stock engine had put out 153 horses and with the standard Latham kit the horses jumped to 186 at 4000 rpm. The next Sunday, bright and early, we were at the same strip with an average four runs of 96.16 mph and an e.t. average of 14.36. This is amazing and proves that the theory behind the Latham supercharger is absolutely sound. We encountered no fuel or detonation problems. The car is very pleasant to drive on the street

y is loose
ce heedl
with the
ard ki
carbure
Associ-
was run
of two
arp be
sons to
le. The
22 mph
The car
and the
installed
used as
pump
spark
ade. We
installed
is dyne
load to
reading.

running)
difficult
choking.

ut 153
Latham
at 4000
ht and
ip with
6 mph
This is
theory
rger is
ered no
The car
e street
CUSTOM



Only a couple of hours after starting the blower installation the Ranchero is on the dyne for run-up checks. There's no better way than that shown above to find out if a product really works. At the right is the Latham full competition unit as installed in a T-Bird. The collector-type manifolds are part of the kit and replace the stock manifold entirely. Due to the mixing effect of the blower stages, the unit needs no exhaust preheating of the mixture. Throttle response is absolutely frightening.



and the noise level is almost non-existent. If you really stand on it, you can barely hear an extremely high pitched humming sound which is far from objectionable. The next series of tests were made using the competition four-carburetor set up. The next size larger compressor was used so the displacement was increased from 312 cubic inches to 328 cubic inches and a Winfield 884 cam was installed. The competition kit Latham puts out does away with the stock intake manifold all together. He furnishes two collector manifolds that bolt to the heads and then to the sides of the outlet volutes on the compressor itself, making a very efficient unit out of it. The

only problem we encountered in the installation was alignment of the compressor unit in relationship to the crank. This is *very* critical and must be accomplished perfectly to insure long belt and pulley life. Latham uses a very unique belt drive set up, which is absolutely flat. No doubt this is responsible for a lot of the compressor's noiseless operation. The belt is nylon and rubber with strands of steel impregnated in it. It is very sturdy and quite ample for all intent and purpose. I would like to say here, in case you're 'way ahead of me, that the engine will run quite well even without a belt. So in the event you broke a belt you wouldn't be stuck somewhere.

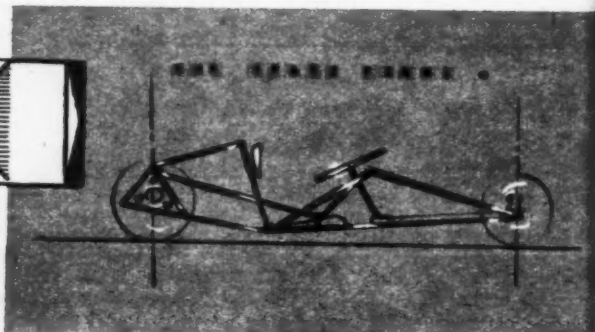
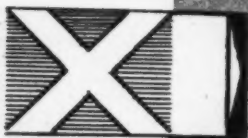
There's nothing to disconnect, even. Just "drive on, James." To give an example of how free and non-horsepower absorbing the compressor is, we started the engine without a belt, revved it to 2500 rpm and shut the ignition off. The air being sucked passed the 12 stages of rotors and vanes caused them to revolve. The unit will run by itself a full 15 seconds after the engine has been turned off. Mr. Latham says it takes only 10 horsepower to run it and it's believable. Wow, what workmanship!

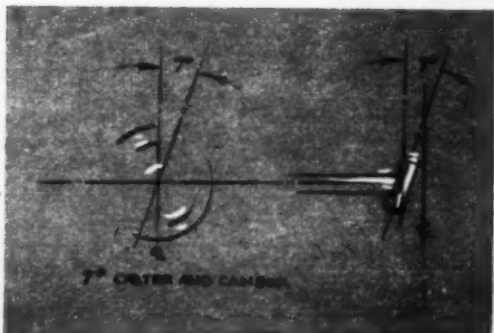
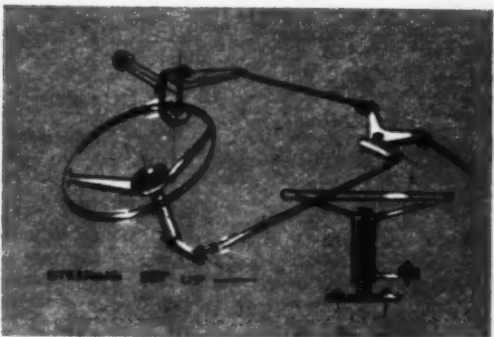
When the installation of the competition kit was accomplished it was about 12:30 on a Sunday afternoon.

continued on p. 72

Putt-Putts

for progressives





1. 姓名: 张三
 2. 性别: 男
 3. 年龄: 25
 4. 职业: 程序员
 5. 籍贯: 广东
 6. 学历: 本科
 7. 婚姻状况: 未婚
 8. 联系电话: 13800138000
 9. 电子邮箱: zhangsan@example.com
 10. 身份证号: 110101199001010001

CUSTOM CAR FANS:

Join the Custom Photo Club and receive 5 x 7 enlargements of custom cars, membership and discount card, and club bulletin.

Send membership fee of \$1.00 to:

CUSTOM PHOTO SERVICE

Dept. RC, Box 9097, Chicago 90, Illinois

REUPHOLSTER with a BRUSH!



(not a paint) impregnates leather or vinyl plastic upholstery. Won't chip or peel. Fadeproof, waterproof. Use on home & lawn furniture. Write for free information, color chart, and dealer location.

RAMCOTE, 1141 W. 69th St. Chicago 21, Ill. Dept. RC

Renew dull, faded, worn leather or vinyl plastic upholstery. Car, plane or boat seats, headliners, sidepanels will look new in any color. Redesign, customize new or used interiors. You can change color too! Easily applied brush or spray. RamCote Flexible Finishes



JACKET EMBLEMS



LADY LOOK

See success of the

advertised size

6" Felt Emblems — 25

7" Felt Emblems — 50

10" Felt Emblems — 1.00

Emblems available in same

sizes at the same price.

Specify when ordering.

PERSONAL NAME EMBLEMS

Red Embroidered on Standard 100% Wool

Send Order — 25¢

SEND NOW

—for NEW complete

Illustrated catalog, emblems,

services and accessories—

25¢

SPOT ENTERPRISES

P.O. Box 88
Culver City 6 Calif.



FREE!

1959 EDITION JUST OUT!

Send only 25¢
to cover handling
and mailing

NEW GIANT CATALOG

100'S OF BRAND
NEW PRODUCTS!

SAVE UP TO
50% & MORE!

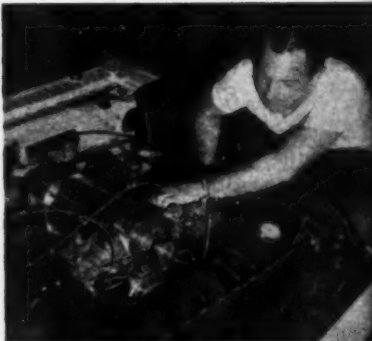
Thousands upon thousands of the top values in only finest Quality Tested Products from our stock of over 150,000 items. Page upon page jam packed with the very newest items and products for car owners. Guaranteed biggest Values ever offered by the great Newhouse organization. Have the Catalog mailed to you today.

NEWHOUSE AUTOMOTIVE INDUSTRIES Dept. 927
5805 E. Beverly Blvd., Los Angeles 22, Calif.

The BIG BLOW

continued from p. 69

Time was running out on us so we skipped the dyno runs for a run at the strip. The car was road tested while the tools were being loaded and we made for a bash at the drags. Let me tell you, a more impressive ride was never had by anyone. High gear felt like the Superchief was pushing the car. The first run at the strip netted a very respectable time of 100.54 in 13.95. Two more runs were made and on that day the trophy run netted the best time of 101.66 in 13.84. The hours put in were well rewarded, for whether



Author Les Ritchey really isn't doing anything in the above photo, even though he may appear to be tuning. Unit ran perfectly.

you agree or not, those are good times for a 3700 pound Ford Ranchero with most of the weight up front.

The car ran well enough to where we felt a trip to Oklahoma City and the National Championship Drags might be worthwhile, so we prepared to make the trip. We assumed that the Gas classes would be just bustling with real genuine street machines, but I'm afraid we were only daydreaming. Anyway, the car was prepared and packed complete with a new rear end of the ratio we decided to drag with; a 4.57, locked-up. The Ranchero had overdrive and the only speed equipment added was a Jackson Roto-Faze ignition set up with a blower curve.

ROD & CUSTOM

The ignition was installed and the Ranchero was driven on the dyno and power run at 4000 rpm full load. The engine netted 236 horsepower at the rear wheels. This was very satisfactory and only substantiated our feelings to head for Oklahoma. The Ranchero being all packed including tools, jack stands, an extra rear end, suit cases and whatever else we felt we'd need, off we started on our trip. Fourteen hundred and fifty-one miles later, non-stop except for gas, we arrived in Oklahoma City. The Ranchero's exhausts were unplugged, a new set of spark plugs installed and up to the line we went for our first tune-up run.



The BIG BLOW at the BIG GO. 1957 National Championship Drags at Oklahoma City saw Latham-blown Ranchero runner-up in A/Gas.

The car turned 100.00 flat in 13.7. We then changed meter pins in the carburetor to be a little richer and turned 102.10. The spark plugs were removed and a plug one step colder installed. a Champion X6A-860. The next and final tune-up run netted a 103.27 in 13.44 and this was all we had time for. The events that happened after this at Oklahoma are water under the bridge, but we did drive the truck all the way there and all the way home, which as far as we know is the only top-contending car having done so. We did get to go off for the trophy in A/Gas class and were beaten only by '33 Ford coupe powered by a Latham-blown engine. After making this trip

OCTOBER, 1958



WEST BEND ENGINES

Factory Dealer
PARTS — SERVICE

Complete Catalog with
Tune Up Tips
MODIFICATION
INSTRUCTIONS

Only \$9.50... Postpaid
12 Tooth Sprocket \$3.50
60 Tooth Sprocket \$4.95

FLER PUMPHET
1100 Main St.
Los Angeles 18, California

Free! HI-PERFORMANCE
Catalog & Souping Data
Double Your Cars Power!
Mingay Style!

SAVE up to 1/2

Buy direct. Latest Power Kits, Superchargers, Fuel Injection, Dual-Quad Exhausts, Cams, Heads, Manifolds, Engines, Adapters, Chrome, Customizing & Trim-FOR ALL CARS. "Best New Items" Cat. FREE, or send 25c to cover postage & we mail you big 50,000 item catalog and "WOW-10" SOUPING GUIDE, PLUS credit good on first order.

ALMQUIST ENGINEERING
MILFORD, PA. DEPT RCC-10

FORD RESTORER'S SPECIAL

Firewall patent data plate, state year \$3.75
Engine enamel, original green \$1.50/pt.
Heat resistant manifold paint, gray \$1.50/pt.
Radiator shell lacing w/rivets, state year \$1.75
Muffler, '28-'31, orig. taper type \$12.50
Model "A" Ford Service Bulletins complete \$3.00
Front floor mats '28-'31 \$4.95, '33-'34 \$3.95

Write for free parts list — No C.O.D.

G. H. 'Tiny' SNELL
2405 W. OLIVE AVE., RC-10 • URBANA, CALIF.

WELD **4 WAY**
BRAZE **\$14.75**
CUT **WELDER**
SOLDER

stock, hot rod and customizing enthusiasts as the welder of 1001 uses. Easily operated from properly wired 110 volt AC or DC line. The ideal gift with a life-long use. . . . Order today on 10-day money back guarantee.

Literature on larger equipment on request

FOUR-WAY WELDER COMPANY

1818 S. Federal St., Chicago 18, Illinois, Dept. F-58-K

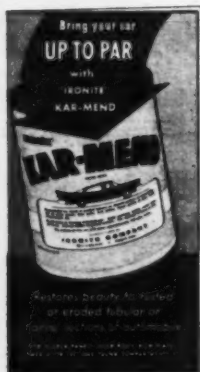


4 Rain Goggles (large) \$3.00
Rain Goggles (reg. size) \$2.50
Plain (fits over glasses) \$2.50
Economy Model pictured \$1.00

Post Paid—Guaranteed

THE H. C. BARNES CO.
175 Morgan St., RC-10
Rockford, Ill.

Repair YOUR OWN Rusted Rocker Panels



Etc.

Get your free booklet on the new, economical, easy way to permanently restore eroded tubular or channel sections.

Distributor inquiries invited.

IRONITE CO.

Dept. KM-3, 208 S. La Salle Street
Chicago 4, Illinois

STRIPING



Flames • Gals
Pin • Pirates
Reflective
Many others
50¢ to \$1.50

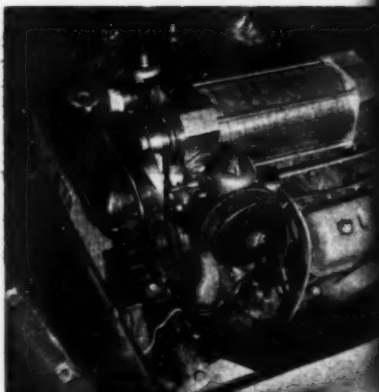


Send a stamped, self addressed envelope for latest catalog and name of nearest dealer. The Kem Co., Rm. B 1310 SW First, Portland 1, Ore.

The BIG BLOW

continued from preceding page

one would have to say the Latham is, above all, dependable. Incidentally, the mileage average with a 4.57 rear end and overdrive all set up for drag racing and with a fully loaded truck (and believe me there was no time wasted getting there — we just didn't have any) was a whopping 15.2 miles per gallon. Try that with any other blower!! I stated at the beginning of the article that there are four or five blower assemblies available, but with the exception of two, the cars, after installation, are no longer street machines. They are, like most Gas class contending machines, impossible to drive to get gas mileage, much less to go somewhere of any great distance. They have to be set up for a particular purpose. The small Latham will put out five pounds of manifold pressure at the manifold. The competition unit



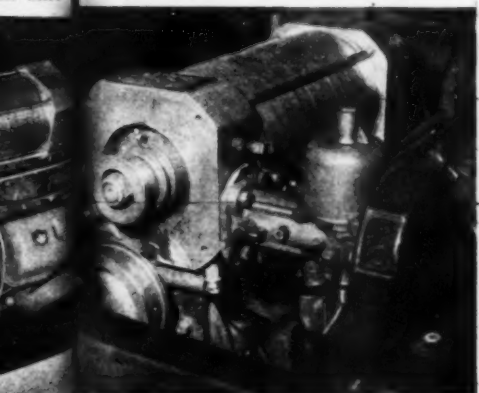
Hollywood speed merchant Max Balchowsky did this Latham installation in a '54 Ford wagon. Carburetors are English-made S.U.'s.

will pump ten pounds into the manifold at 5000 rpm and do it all day long, yet be docile enough for the street and noiseless enough to drive without being the least bit obvious. On top of this, the unit has even more potential for out and out GO machines where hood lines and other obstructing factors don't have to be

ROD & CUSTOM

taken into consideration. Varied and more efficient carburetion can be installed, and more venturi area could be used. Fuel blends can be utilized and even injectors can be installed. These could really be used because the mixing by the 10 to 12 stages of rotors and vanes really help lick the big problem of making injectors idle and run good on the low end. Also a competition belt drive is available which cuts belt slip to an absolute minimum.

Two S.U. carburetors work out very good with the two-carburetor job. This set-up was installed by Max Balchowsky on one of his customers' Latham-blown, Ford wagon. The stock wagon had put out 130 horses to the rear wheels. The Latham was installed, bringing an increase of 40 rear wheel horsepower, and throttle response from idle to full power was terrific on the road. This customer needed more power to pull a trailer to Alaska last summer and the Latham really did the job.



Close-up shot of the conversion to S.U. carbs. Latham axial flow supercharger is by Latham Mfg., Box 165, West Palm Beach, Florida.

I'm thoroughly convinced the Latham supercharger is one of the most trouble free units made available to the public as a power increasing commodity. It's first class in every respect and I know of nothing which has more potential either for the street or full competition. Sort of a case where you can have your cake and eat it too! ●

OCTOBER, 1958

EASTERN H.Q. GO-KART 400



Fun and thrills for the whole family. Up to 30 MPH. Race-Car handling. Complete kit \$129.50 at Eastern H.Q. Write for info.

CALIFORNIA SPEED & SPORT
250 Jersey Ave., RC-10, New Brunswick, New Jersey

START at the TOP

Learn Auto Mechanics
at Home in Spare Time

"America is short 100,000 auto mechanics," a famous magazine reports. "America needs 25,000 more auto repair shops," a noted motor executive says. Pay is tops: Averages up to \$3.00 an hour. Steady work is plentiful: Two-thirds of all cars are in the heavy-repair class. Mail coupon for free new catalog and sample lesson!



Train by Practicing with Tune-Up Kit & Tools



CTI sends you professional Mechanic's Tools and Tune-Up Kit. Instruments include a Compression Tester, Vacuum Gauge and Fuel Pump Tester, Ignition Timing Light; in portable steel case. You get additional training in Diesel or Body-Fender Rebuilding. It's easy to earn money as you train.

Get Facts Now—Decide Later

Your future is worth looking into. Get facts on job and business opportunities. Mail coupon now.—Commercial Trades Institute, Chicago 26.

MAIL TODAY
FREE
BOOKLETS

COMMERCIAL TRADES INSTITUTE

1400 GREENLEAF AVENUE A-878
CHICAGO 26, ILLINOIS Dept.

Send booklet, Make Big Money in Auto Mechanics, and Sample Lesson. Both are FREE.

Name _____ Age _____

Address _____

City _____ Zone _____ State _____



ARIN CEE BY MILLAR

WOODLIFTERS
DANTON, O.



THAT'S SURE A FINE LOOKIN' MACHINE YOU'VE GOT THERE. WOULD YOU LIKE TO ENTER IT IN OUR NEXT CAR SHOW?



YEP, THAT'S A REAL WINNER. LOTSA CHROME, CLEVER PAINT JOB, AND THOSE FLAMES — WHY MAN, THAT REALLY MAKES IT.



NOTHING WAS TOO GOOD FOR ...

THE WAY THE FLAMES JUST SEEM TO FLOW TOWARD THE COCKPIT ...



FLAMES? COCKPIT?
I AIN'T GOT FLAMES!



FWWWWWW, TOO BAD. THEY WERE SUCH PRETTY FLAMES, TOO.



OUR READERS WRITE

continued from p. 9

of your monthly offering. His "Half a Dozen Devotees" still has me laughing. Can we look forward to more in the future?

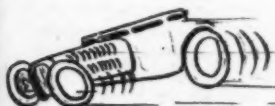
George Harley Columbus, Ohio
 ● If next month's Kohler offering, "Fission Trip" is an indication of the humor extent of the more than half a dozen Kohler articles recently ordered, then reader Harley has a side-splitting time ahead of him.

MODELS

We feel you've fallen down on your promise to produce stories on the hobby of model car customizing. The series you've had on electric rail racing has been good, but let's see more on restyling kits like those produced by Revell.

John Anderson

Waukegan, Ill.



MORE MODELS

Though the construction of an electric rail racing car in a recent issue was well described, at least to the extent that the enthusiast could probably build a similar car by following the outlined steps, the cars are not suitable for straightaway racing. I put one together and found it suffered from excessive wheelspin. Couldn't a dragster type car be built, one which was designed exclusively for dragging? Walter Beavers, No. Hollywood, Calif.

● Not only can they be built, they have been. In fact, if you'll dig through that stack of R & C's you undoubtedly have (who'd be without 'em?), 'till you uncover the March '58 issue, you'll see 'em. Incidentally, John and Wally, this issue contains a nice spread on a couple of revamped coupes, built using commercial kits as a starter, and next month we'll take another looksee at scale draggin'—this time using available plastic bodies, economical and easily available motors, and all like that. This next month thing will at last combine the hobbies of electric rail racing with miniature car customizing. And wait'll you see the Buick that shuts off a Ferrari roadster!

ROD & CUSTOM • OCTOBER, 1958

GO with
GETZ!



NO-SPIN and POWER-LOK DIFFERENTIALS

Stop Spinning Wheels on
Ice and Slick Spots!

Power-Lok is the same as furnished with original equipment under other names such as Posi-Traction, Safe T Track, Sure Grip, Twin Traction, etc.

Send for Flag Decal — 25c
Catalog — Price List — 10c



Getz Catalog lists standard and special race gears available for Passenger Cars, Station Wagons, 1/2 and 3/4 Tons. In ratios from 2.69 to 6.67.

Write Dept. RC

A. J. GETZ

4430 Carrollton Ave., Indianapolis 5, Ind.
ATwater 3-5577

Ingels-Borelli



Caretta

"SUPER LITTLE CAR"

Complete do-it-yourself plans — \$2.00
including material and price list

Caretta ready to run **\$195.00**

F.O.B. LOS ANGELES

Ingels-Borelli

2100 ECHO PARK AVE., LOS ANGELES 26, CALIF.

CONTOUR CREEMWAX



FOR BURRS,
CREW CUTS
FLAT TOPS

A New Easy-To-Use
Cream That Stands Up
All Short Haircuts
Without Muss & Bother.

AT YOUR BARBER SHOP

DANDERIDE MFG. CO., BOX 5067, OKLAHOMA CITY



By George Burnley

Screw type ignition points are often quite irksome to install because they are hard to hold when starting. To cope with the situation it is possible to use a little wooden stick such as an ice cream spoon or doctor's tongue depressor as a holder by drilling a hole and forcing the screw through the wood. After the threads have taken hold firmly, simply split the stick by twisting and remove.

.....

On jobs of wheel striping, the valve stem often gets in the way preventing a nice, even, line accomplished by spinning the hoop. The stem may be held out of the way by bending a deep "U" with a piece of welding rod and hooking this over the edge of the rim.

.....

LATHAM SUPERCHARGED CARS FASTEST AT NASCAR EVENTS AT DAYTONA BEACH, FLA

KAROL MILLER TOPS! 1st SPORT CAR, FLYING MILE

Running his stock-bodied Ford Victoria equipped with the Latham Supercharger, Iskey cam and Mullory ignition, Karol Miller turned two-way average time of 153 mph to cop top time of any American car on the beach (including T-Birds and Corvettes), and top in experimental class by 18 mph! What really makes this feat so amazing is that his otherwise stock Ford engine displaced only 272".

Pete MacDonald drove his Latham Supercharged '57 T-Bird at 149.1 mph to first-place in all classes of competition sports cars, topping his nearest rival by 12.3 mph. MacDonald's car was of stock displacement and completely equipped, including windshield and hardtop.

1st & 2nd CLASS A SPORTS CAR, STANDING MILE

Driving Jack Herzley's Latham Supercharged '55 T-Bird, Phil Stiles took first-place at 90.8 mph. MacDonald's T-Bird took an unofficial second after spinning out on the first run.

Kits available for CORVETTE, THUNDERBIRD, CHEVROLET, CHRYSLER, OLDSMOBILE, CADILLAC, FORD, MERCURY, BUICK and PONTIAC. Standard kits start at \$445. Easily converted to competition.

TOP SPORTS CARS AT DAYTONA DRAGS

LATHAM SETS A NEW Z SPORTS CAR
INTERNATIONAL RECORD

A Latham blown T-Bird made 115.38 mph (12.10 ET) to take trophy for best of sports cars. This Bill Frick-serviced car beat runner-up all-out Corvette by 4 lengths!

WRITE DEPT. RC P. O. BOX 165,

LATHAM MANUFACTURING CO

WEST PALM BEACH,
FLORIDA

Sometimes, especially on Chevy six engines from 1950 onward, the valve cover gasket leaks because it slid inside at the time of installation. In replacing same, this trouble may be avoided by sticking ordinary pins through close to the edge at places where it has a tendency to crawl without on tightening.

Also, some Chevys continually leak grease around the ball housing and cap. To cope with the problem, it is often possible to stop the leak by removing the cap, sliding the bell backwards, and packing it with ordinary wheel bearing grease.

• • • • •

Although there are many stunts for finding shorts in car wiring circuits here are a couple which are very simple to rig up and are quite helpful and effective:

Get a Delco Remy No. 410-D or similar vibrating circuit breaker (or any buzzer which will work on your particular battery). Pull the fuse which bridges the circuit in question and hook the two leads of your buzzer on the fuse terminal block as a temporary replacement. Now drive the car over a rough road slowly subjecting it to many twists. When the buzzer signals, stop the car and check for the source of trouble. For visual signals the same idea may be carried out by substituting an ammeter for the buzzer. If the car happens to have a thermostatic breaker, put the testing unit in series at the battery.

• • • • •

The BARON & ROTH have done it again

In addition to our \$3.00 Striping Brushes and our \$5.00 Wiper Shirts we are introducing

Scalloped Decals*

*Red, Blue or Gold

GIANT 10" decals patterned after our world famous hand painted scallop jobs

THE BARON AND ROTH

9001 ATLANTIC BLVD. • R. SOUTH GATE, CALIF.
Set of 6 for hood, deck, wheels and doors \$5.00



J. C. WHITNEY'S

FREE AUTOMOTIVE CATALOG



SAVE UP TO 50%

260 Pages Jammed With 85,000 Items
Guaranteed Quality. Same Day Service.

Mail the coupon today for the largest catalog of Guaranteed Auto Accessories and Parts for all cars, custom cars, station wagons, hot rods, trucks - all makes, years and models.

Here are just a few of the up-to-the minute items you'll find in this great money-saving catalog: Newest Custom Equipment • High Speed Parts • Tires & Batteries • Tremendous stock of Mufflers & Exhaust Systems • Radios • Heaters • Lifetime Convertible Tops • Oil Filters • Fender Skirts • Continental Kits • Ignition • Dual Headlights • Engine Adaptor Housings • Huge Selection of Seat Covers • All Stock and Replacement Parts.

You can buy with absolute confidence at J. C. Whitney because "We Guarantee Absolute Satisfaction or Your Money Back".

J. C. Whitney & Co., Dept. U-10
1917 Archer Ave., Chicago 16, Ill.

FREE—Mail Coupon Now!

J. C. WHITNEY & CO., Dept. U-10
1917 Archer Ave., Chicago 16, Ill.

Hush giant 260 page Catalog showing over 85,000 items at lowest prices. I enclose 25c to cover mailing and handling. (refunded on first \$5.00 order). Offer good in U.S.A. only.

Name _____
Address _____
City _____ Zone _____ State _____

MEMBERS RECEIVE:

- Club I.D. Card
- KOA Decal
- Special Discount Catalog
- KOA Club Newspaper
- Custom and Speed Problems Answered
- Assistance in Forming Clubs

DISCOUNTS ON:

- Custom Automotive Accessories
- Ansen Speed Equipment
- Jackets, T-Shirts
- Lapel Pins, Emblems
- Dash Plaques, Plates
- Trophies
- Custom Rugs and Upholstery
- Leading Monthly Auto Magazines

No Age Limit

No Car Necessary

Open to Men & Women

Membership Only \$3 a Year



Join Today!

KUSTOMS OF AMERICA

BARRIS SANCTIONED**NATIONALLY ORGANIZED CUSTOM & SPEED CLUB****KUSTOMS OF AMERICA**

5888 Hollywood Blvd., Hollywood 28, California, HC-10

I hereby apply for membership in Kustoms of America and enclose

 \$_____ for _____ years' dues, entitling me to
 an official membership card, windshield decal, special discount catalog,
 KOA news subscription and full association privileges.

NAME _____

AGE _____

ADDRESS _____

CITY _____

STATE _____

REVAMPED RAM

continued from p. 27

control. The control dial was mounted inside the car where it could easily be reached for quick adjustment.

Mounting the La Salle box on the back of the big mill proved to be a sizeable undertaking. The transmission pilot shaft had to be lengthened 2 1/4 inches to meet the Dodge flywheel. A new front bearing retainer had to be fabricated for the LaSalle shaft and the holes mating the box to the housing re-aligned. A Ford throwout collar was also modified to work over the new bearing retainer tube. When ready to be buttoned together an 11" Ford

pressure plate and clutch previously modified for racing was slipped into place and tightened down. Before the assembly could be installed the drive-line was shortened and equipped with a '37 Cad slip joint and universal and a late Cad rear mount adapted to the back of the gear box.

When installed the new engine was started, warmed up and the valves set with .015" clearance on the intakes and .024" on the exhausts. After this the pots were experimented with until they progressed nicely from a crawl to 5000 rpm in gears. The thing had

CLUB JACKETS**SPECIFICALLY DESIGNED FOR CAR CLUBS**

- ★ Many models and dozens of color combinations.
- ★ Styling, lettering, and emblems are finest in the nation.
- ★ Prices include all lettering and emblems. \$13.50 to \$25.00 in club lots of 6 or more.
- ★ No individual orders — 6 minimum.
- ★ Free Literature.

SEND 25¢ TODAY For complete catalog on Emblems, Jackets, Shirts, Plaques, Novelties—including information on how to start your club.

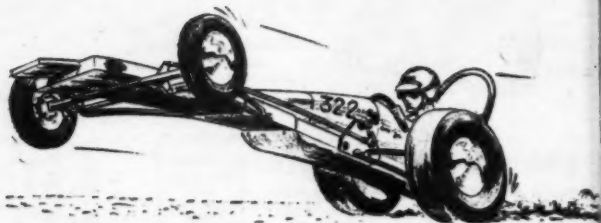


PLAQUES
JACKETS
T-SHIRTS
EMBLEMS
DECALS
FLAGS
TROPHIES
EMBROIDERY
CHENILLE
NOVELTIES

STYLIZED EMBLEM CO.1072 Q.No. Wilton Pl.,
Hollywood 38, Calif.

CUSTOM





YOU'D THINK that the State of Michigan, cradle of the U.S. auto industry, would be a leader in auto sport development. Actually it's been quite backward along this line for some reason — especially so in regard to the drag sport. We've had regularly-scheduled strips in operation for less than a year, and there are only three in the whole state now! That's why the recent ATAA mid-summer Championship drags, run over the 4th of July weekend on the new Stanton strip, were of special interest to me. I was surprised to see performances in many classes on a par with the best in the country.

Top eliminator and best time of the meet went to the famous "Speed Sport Spl." from Tucson, Ariz., with Red Greth driving; best speed was 155.2 mph, with e.t.'s in the high 9's and low 10's. Those Tucson boys know how to burn nitro! Greth was pushed all the way by the new Chrysler-powered Kroff-Jewett slingshot from Mason, Mich.; they turned 147 mph and e.t.'s in the low 10's on only 25% nitro. Give 'em time. Gas dragsters are below 130 mph around here, and we don't have a lot in the way of hot competition coupes and roadsters. Anything over 110 mph is considered very quick in these classes. Earl Whalen's Crosley A/Altered sedan, powered by a Latham-supercharged 283 Chevy, turned a neat 118 mph on gas. This car retains the stock Crosley front tread width — so it looks like a kangaroo going down the strip!

I was especially interested to see the well-known "Air-Lift Special" Daytona Pontiac in competition in the Super Stock class. You'll recall this car was used for a straightaway speed contest between the top five NASCAR drivers at the Daytona Speed Weeks last February, sponsored by the Air-Lift Co. of Lansing, Mich. Lee Petty turned the fastest flying mile at 146.05 mph. Writer Bill Carroll tested the car in Florida at that time, and got best times of 91.83 mph and 15.23 e.t. on the Flagler Beach drag strip. This was with the 3.08:1 beach gears. For the Stanton drags 4.30 gears (with Positraction) were installed and the engine tuned with increased spark advance. Results were only fair. Driver Wally Chandler got the speed up to 95.77 mph — (enough to take the top speed trophy in S/S) — but they couldn't get the e.t. into the 14's. Ballast up to 250 lbs. in the trunk didn't do it. A possible answer: more rpm. Accelerometer checks showed the optimum shift point above 6000 rpm, but valve float set in at 5700 ... and the rpm at the finish line with the 4.30 gears was only 5000.

Oh, yes — a '58 Chev with Duntov cam and triples did the job on Chandler in the eliminations! ●

ORDER BY MAIL

HONEST NEW ITEMS

ORDER BY MAIL

CHROME TAPE

A GLEAMING SELF STICKING Chrome Tape for thousands of customizing ideas. FEATURED in May issue of Rod and Custom Magazine—Use on dash or outside. Many Household Applications. CAN BE TINTED WITH KOLOR-KROME PAINT—

Each Roll Contains 72 yards of self sticking tape.

HONEST Nos. WE PAY POSTAGE

CT7014—1/4" wide 72 yd. roll
CT7038—3/8" wide 72 yd. roll
CT7012—1/2" wide 72 yd. roll
CT7034—3/4" wide 72 yd. roll

each \$2.95
each 3.95
each 4.95
each 5.95



LOWERING BLOCKS

For All Cars
with 2 Leaf Springs on Rear.
Complete with U-Bolts.
Kit to Lower Rear
Bumper 2" — \$3.95
Kit to Lower Rear 3"
\$4.50
Kit to Lower Rear 4"
\$4.95
State Year and Model Car



HONEST No. 51

HOLLYWOOD WOLF WHISTLE



Works on
Engine Vacuum
\$2.95 Postpaid
HONEST No. 15

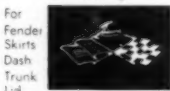
DELUXE CHROME GENERATOR COVERS



For all GM-Chrys
products
Ford Products
2.25 Postpaid
HONEST No. 23

IMPALLA EMBLEM

Self Sticking



For
Fender
Skirts
Dash
Trunk
Lid
Each Postpaid \$1.00
HONEST No. 73



HEAT RESISTANT ENGINE ENAMEL

RED - BLUE - GREEN

1/2 Pint
\$1.00 Postpaid
HONEST No. 12



PINSTRIPING

12 Separate Designs
Per Set
Colors: Red-Green-Blue-
Gold-White-Black
Each set of 12 Designs
only \$1.00 postpaid
HONEST No. 39

NEW FIESTA TYPE CHROME WHEEL COVERS WITH CHECK BACKGROUND

14" or 15"

For all cars — Replaces
original factory type.



3 BAR SPINNER

Heavy
Con-
struction.

Space for
Weights

Set of 4
\$28.95

HONEST No. 40

Set of 2 \$14.50
HONEST No. 41

(State size of Wheel)

KOLOR KROME

The most sensational customizing product in years Featured in recent issues of Rod and Custom and Custom Cars Magazines — Formulated by George Barris — Mr. Custom Car himself — Transparent Coloring for Chrome — the (mirror like) reflection of chrome shows through —



4 Dazzling Colors in 16 oz. Spray Can

HONEST'S No.

KK-1 Pagan Gold
KK-2 Candy Apple Red
KK-3 Oriental Blue
KK-4 Parisian Green

16 oz. Can \$1.98

For Chrome — Stainless Steel—
Polished Aluminum



UNIVERSAL ELECTRIC TRUNK LATCH KIT

\$5.75 KIT (Any Car)

HONEST No. 3

You Pay Postage



ELECTRIC DOOR LATCH KIT — PUSH BUTTON OPERATION

\$12.75 KIT (Any Car)

HONEST No. 2

You Pay Postage



SOM-RAY SPUN ALUMINUM WHEEL DISCS HEAVY GAUGE

For Draggins

For the Street

New Low Price,

\$2.95 Each 14" 15" 16"

STATE TIRE SIZE

HONEST No. 49

Send 25c for new 1958
Surprise Money Saver
Catalog—then next issue
FREE

SEND 25% DEPOSIT ON C. O. D. — SEND
FULL AMOUNT ON ITEMS MARKED PREPAID
NO CODs FOR LESS THAN \$5.00

My car is a _____ Year _____

Name _____

Address _____

City _____ State _____

Quantity	Part No.	Description	Price



HONEST CHARLEY SPEED SHOP

Box RC 1904
Chattanooga, Tenn.

Go Kart



MORE HORSEPOWER

FOR THE PERFORMANCE-MINDED KARTER IS AVAILABLE IN THE RECENTLY RELEASED 3 hp AND 4 hp ALL ROLLER BEARING ENGINES BY WEST BEND. BIGGER DISPLACEMENT AND PROVED CONSTRUCTION, IMPROVED CARBURETION AND LESS FRICTION MAKE THESE NEW ENGINES IDEAL FOR THE COMPETITION ENTHUSIAST. NOT RECOMMENDED FOR USE BY SMALL CHILDREN. WRITE NOW FOR FULL PARTICULARS



fun on wheels - for everyone!

Kart Kit
\$ **129**⁵⁰

Go Karting is spreading and chances are, if you're not already among the thousands of AFFICIANADOS, you'll soon be building a torrid termite of your own. We're convinced you can't touch the high quality of the Kart Kit for the price. It contains pre-formed Chromemoly tube frame members, pneumatic tires on matched-size wheels, BRAND NEW, hi-revving engine—in short, THE BEST! Complete plans and instructions are available for \$3.95. Look 'em over, and if you find you can't get the kart parts locally and save money, send the coupon back for full credit toward a Go Kart kit. Fair enough?

NEW 4-COLOR BROCHURE

You'll be as pleased as we are with the new pamphlet that tells all about Go Karting. Many photos of Karts in action as well as views of the new 400 model in kit and completed form. Information and prices on the potent RACE KART are there with a full color exploded view of the 400 and a price breakdown of each individual part. Please enclose 25c for handling.

Go Kart

MFG. CO.

RC-10, 152 E. HUNTINGTON DRIVE • MONROVIA, CALIFORNIA

re, if
is of
g a
nced
Kart
rmed
matic
NEW,
Com-
e for
you
save
redit

RE

new
Many
vs of
form.
RACE
oded
rn of
c for

RNIA